

**A COMPARATIVE STUDY OF HIGH CREATIVE AND  
LOW CREATIVE STUDENTS IN RELATION TO  
THEIR ADJUSTMENT, VOCATIONAL INTERESTS  
AND ACADEMIC ACHIEVEMENT**

**THESIS**

*Submitted for the Degree of  
Doctor of Philosophy*

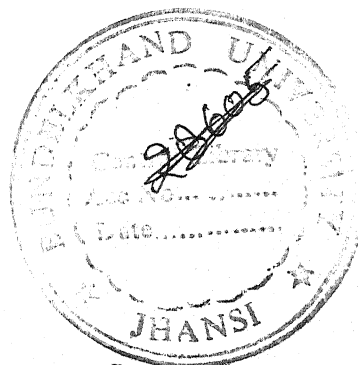
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Supervisor :

**Dr. J. L. VERMA**

**BUNDELKHAND COLLEGE  
JHANSI.**

Researcher :

**Km. SHUBHA BANSAL**

CERTIFICATE

Certified that the thesis entitled,  
"A COMPARATIVE STUDY OF HIGH CREATIVE AND LOW  
CREATIVE STUDENTS IN RELATION TO THEIR ADJUSTMENT,  
VOCATIONAL INTERESTS AND ACADEMIC ACHIEVEMENT"  
submitted by Km. Shubha Bansal for the award of  
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University, Jhansi, is the candidate's own work  
which has been carried on under my guidance and  
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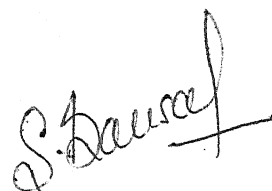
It is also certified that she had  
completed the attendance requirement.

(Dr. J.L.VERMA)  
Bundelkhand College,  
Jhansi



### DECLARATION

I solemnly declare that this thesis entitled, "A COMPARATIVE STUDY OF HIGH CREATIVE AND LOW CREATIVE STUDENTS TO THEIR ADJUSTMENT, VOCATIONAL INTERESTS AND ACADEMIC ACHIEVEMENT" submitted by me for the award of Ph.D Degree in Education of the Bundelkhand University, Jhansi, is my own work and has not been submitted earlier. However, If later on. I shall be fully responsible for the consequences thereof.



(Km. Shubha Bansal)  
Investigator

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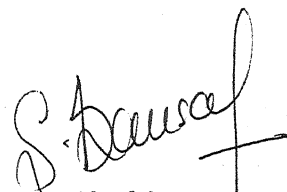
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## CHAPTER - I : INTRODUCTION

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## CHAPTER - I

### INTRODUCTION

#### SENSING THE PROBLEM :

Creativity is one of the highest human qualities. Creative children with wide range of intellect and talent, are an ascent to any society. Many philosophers and scientists from Plato and Aristolle to the present day recognized that a nation's resources of superior talent are the most precious it can have. The progress that a nation can make depends not only upon the talented persons it has but also upon the opportunities and facilities given to them in their respective fields. According to some psychologists the greatness of a nation varies with the number of geniuses it produces and the honour in which it holds them. Therefore, it becomes the duty of society to give the creative consideration and special facilities they deserve.

Speaking at the campus of Stanford University in the year 1906 William James had remarked.<sup>1</sup> "The world... is only beginning to see that the wealth of a nation consists more than it harbcur." James was generous enough in suggesting that the world shared his own prophetic understanding. We are just now coming to grasp the profound truth of his remark. In the First World Conference of the creativity, special attention was given to creative children and their valuable potential contribution to the benefit of man-kind.

Our country has always been a land of opportunity for people with all sorts of abilities. Here the talented as well as the mediocre has equally contributed to the creation of modern civilization. But it is not possible for a nation in this age of scientific and technological advancement to depend solely upon the quality of man power as the complex society of tomorrow would need highly creative personnel or especially talented persons to cope with the vital problems. At present there is a great popular interest in what has been called 'wastage of talent'. Probably a more accurate term would be 'the shortage of trained talents', since today there is actually less wastage than in earlier years, but there exist a much greater demand for trained talents. To avoid such a wastage of potential youth in India,, National Council of Educational Research and Training undertook a programme of talent search in science soon after its establishment in 1961, objectives of the scheme being to identify a group of brilliant students at the end of higher secondary stage. The scheme was further extended to the entire country in 1964. From 1977 onwards, the frontiers of the scheme have been extended in order that selected students may have the option of joining earlier the courses of engineering, medical, social or agricultural science. The entire education of these scholars from post-graduation to doctoral level is taken care of by the NCERT

which is an autonomous body fully financed by the Ministry of Education, Government of India. Thus, the main purpose of this programme is to produce a band of brilliant scientists in the country.

It is said that the people are happiest when they use their abilities in the ways which they enjoy. In a democratic society like India stress is laid on 'equalisation of educational opportunities'. Doesn't it mean the opportunities for the efflorescence of the potentialities of each and every one in the society? An important objective of education consists in preparing the creativity to be the creators of new ideas, the innovators and the leaders in the progressive path of human development. This all requires the knowledge of the creative students with their different personality characteristics.

A widely accepted view that the creativity in the youngsters is particularly a matter of special talent. It is well to have a broad concept of creativity, broad enough to include 10-20% of the children. There are two reasons why special attention should be given to the education of the creative children at this time. One is the great need of our society for trained man-power in a variety of walks of life. The other reason is that creative children are not sufficiently encouraged in the programme of mass education. It is important to provide them with opportunity to

develop their abilities and to utilise their talents in ways of which the society approves. Our country also needs them more for the national security. They are most valuable resources because they maintain our culture and heritage and contribute to the advancement in all fields. But they need help, proper education and guidance at proper time. They must be identified and then carefully nurtured. The supply is low and precious, we must invest in talent because its return to the society is ten times what it costs.

In a democratic set-up, compulsory education is a birth right the cherished object of every man. All children are expected to get opportunity to grow and to learn in accordance with their capacities whether they are average, dull, creative or otherwise. But towards the creative children the society must pay special attention and bear responsibilities to discharge. The society cultivates them and the consequences yielded by them make the society richer and more advanced.

Creativity is one of the features of total development of a child. It is related to all other aspects of his growth. Although, the creative child is different from the average child in certain ways at every stage of development, at no age is he completely different. As one wise mother said, "I know my child is creative, but he is, first of all, a child."<sup>2</sup> Creativity is many sided and many



patterned. It may take many forms depending upon the particular circumstances. It is progressive from birth to the time the child attains maturity. The educational and vocational potentialities of the creativity are greater, since they achieve at higher level than their peers, and consequently have greater range of choice. The range is comparatively limited because the creative do not choose lower level's vocations. They get more advanced training and actually choose vocations from a narrow range at top vocational level. They are necessarily good students in the academic sense.

Thus, creative children if properly educated, constitute a rich man - power. By their abilities and skills they constitute an additional asset to the society. In an age of industrialisation, technology and science a creative child can be a source of promise to the society. An economy in a society can get aboost from the gifts of their intellectual capacities. If a creative child is ignored and not nurtured in a society, it will lose a creative adult, which is a serious loss not only to the country but also to human civilization, therefore, the importance of educating and nurturing the creative ones can not be neglected.

#### STATEMENT OF THE PROBLEM :

The central purpose of this study is to compare quantitatively the significant differences between the high

creative and low creative students in relation to their adjustment, vocational interests and academic - achievement By the aid of creative tests. The individuals (students) to be studied were firstly divided into the high creative and the low creative groups. At it is difficult to study all the aspects of personality at a time, only were viz. Adjustment, Vocational interests and academic achievement were selected. Three reasons impelled the investigator to select such a topic.

1. The dominant part is played by these aspects on the formulation and development of a personality.
2. The availability of psychological tools which could profitably be used for the purpose of compiling informations for guidance and counselling.
3. As the students in the age groups (XI class students) selected for the purpose begin to think these aspects themselves, the tests could be easily understood by them.

In such a state of affairs, the problem, thus, developed in actual words is as follows :-

"A COMPARATIVE STUDY OF HIGH CREATIVE AND LOW CREATIVE STUDENTS IN RELATION TO THEIR ADJUSTMENT, VOCATIONAL INTERESTS AND ACADEMIC ACHIEVEMENT."

#### DEFINITIONS OF THE IMPORTANT TERMS USED

##### Creativity: Its Meaning and Definition :

Creativity is an important area of interest in

education which has stimulated a lot of research. In the past four decades. There has been an enormous amount of research and writing on the subject of creativity. However, the present boom of research on creativity started with Guilford's presidential address to the American psychological Association in 1950. Nevertheless difficulties in defining creativity seems to persist even today and psychologist appear to differ among themselves about the distinctive marks of a creative mind.

The term 'creativity' has been used very broadly to include a number of things. The inventor, inventing something new; the poet composing a poems the person imagining the solution of a problem, the child creating a piece of art by drawing some crude lines and the women attempting to make a unique flower pattern etc., all are the examples of creative behaviour (Usmani, 1981).<sup>3</sup>

However, definitions of creativity are abundant. Morgan (1953)<sup>4</sup> pointed out that there are twenty five definitions of creativity and there is only one common factor that creativity involves the development of something unique.

A thorough analysis of fifty definitions of creativity was done by Rhodes (1961)<sup>5</sup>, who included four strands of creativity: person, product, process and press. Various definitions of creativity, however, around these aspects are available. Golann (1963) classified the

literature on creativity into categories, product, process, nature of the individual Welsh (1973)<sup>6</sup> suggested that approaches to study creativity may be described psychological terms such as person, product, process, press and place.

In the words of Nunnally (1970)<sup>7</sup>, "The word creative is concerned with the invention of something or production of something that is new, rather than the accumulations of skills or the exercise of book learned knowledge."

Now it is clear, that there is no universally agreed definition of creativity. All the definitions of creativity can be placed in to three categories on the basis of the emphasis, namely person, product and process.

#### Creativity As a Person :

This approach to the study of creativity explains creativity in terms of the person and his psychological characteristics.

Guilford and his associates - 1952<sup>8</sup> have listed the following intellectual characteristics as measures of creative talent; originality, adaptive, flexibility, spontaneous flexibility, expressional fluency and word Fluency.

Barron (1957)<sup>9</sup> reports that creative people have an intense aesthetic and moral commitment to their work. Mackinnon (1962)<sup>10</sup> reported in the California Psychological Inventory that the high creative architects

emerged as self confident, aggressive, flexible, self accepting, little concerned to with social restrains or other's opinions.

Various investigators like Ghiselin (1952)<sup>11</sup> Torrance (1962)<sup>12</sup> Gatzels and Jackson (1962)<sup>13</sup> arrived at essentially similar findings. High creatives when compared to the low ones or non creatives, manifested greater independence, dominance, autonomy unconventionality, broad interests, complexity, stability and emotional sensitivity.

#### Creativity as a Product :

The study of creativity by means of products seems quite natural. Many psychologists have defined the creativity in the terms of product which is novel and also useful.

According to Stein (1963)<sup>14</sup>, Creativity results in novel work that is accepted as tenable or useful by a group of people.

Wallach and Kogan (1965)<sup>15</sup>, 'Creativity as a bifurcate associational construct in terms of associational fluency and response uniqueness.

#### Creativity As a Process :

Some psychologist studied creativity as a process. They lay less stress on the person and more on the process, working with in the psycho of the creator. There is a general agreement among the psychologists regarding the creativity process. Certain unconscious mental processes and

responsible for metaphoric functions of fusing images into new creations.

Torrance (1969)<sup>16</sup> has defined creativity as "The process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies and so on identifying the difficulty, searching for solutions, making guesses or formulating hypotheses about the deficiencies testing and retesting these hypotheses and finally communicating the results."

The various definitions of creativity shows that the phenomena of creativity is so complex and multi-dimensional that each thinker considers its different dimensions as a complete definition. Even the psychologists do not agree among themselves for a common consensus of defining creativity. Therefore, a good number of definitions of creativity have been proposed by psychologists since this concept attracted their attention.

Getzels (1960)<sup>17</sup> has attempted to define creativity in a different way. He gives primacy to the nature of the problem rather than to the solution. Lawther (1977)<sup>18</sup> says, "The degree to which the creativity unit is a copy of limitation of the model or is action under supervised guidance to attempt to reproduce a preestablished from the pattern of action, it is not considered original or creative."

Guilford (1959)<sup>19</sup> enumerated six traits - sensitivity, fluency, flexibility, originality redefinition

and elaboration of creativity, whatsoever, its range of application be, is by no means a unitary trait but it is rather a collection of different component of abilities and other traits.

Passi (1973)<sup>20</sup> defines creativity as, " It is a multi-dimensonal (Verbal and non verbal) attribute differentially distributed among people and includes chiefly the factors of solving problems, fluency, flexibility, originality inquisitiveness and persistency.

Baquer Mehdi (1973)<sup>21</sup> has also defined creativity by having following Guilfordi description of creativity in terms of fluency, flexibility, originality and elaboration. In the present investigation, the creativity as Baquer Mehdi, did who took four traits in developing his own tool to measure creativity.

In the present study have been taken only two areas of creativity -

#### **I. High Creatives :**

By the word 'Creative' the researcher meant the students who could generate maximum number of unique responses to the stimuli given on the Baquer Mehdi. Verbal test of creativity. The scores obtained thus have been arranged in ascending order to N.P.C. upper 1/6th students of the total sample have been treated as 'High Creatives'.

#### **II. Low Creatives :**

According to N.P.C., lower 1/6th of the total number of scores have been treated as 'Low Creatives'.

**ADJUSTMENT :**

As human beings we have many needs and we spend most of our time and energy, trying in satisfying them. Life consists of a series of such sequences in which needs arise and then are satisfied. This familiar pattern is nothing but the process of adjustment. It is a neverending process, bound up with human life. So, the adjustment is the main component of human life.

According to L.F. Shaffer<sup>22</sup>, the relationship which becomes established among the biological heritage or organism, the environment and the personality, it is adjustment. Generally, the term 'adjustment' refers to a harmonious relationship between the person and the environment. The degree of harmony depends upon two things certain potentialities a person endowed with and the character of the environment. In simple words, adjustment is an all inclusive term meaning relationship between an individual and his environment through which his needs are satisfied in accordance with social demands. Thus adjustment is a process of unique importance in human life.

According to Kundu and Tutoo (1969)<sup>23</sup>, the term adjustment refers to a harmonious relationship between the person and environment. The degree of the harmony depends upon the two things, certain potentialities within a person, and the character of the environment. A person is said to be adjusted when he is happy in his environment.

Another definition of adjustment is as : "Living is a process of adjustment; and like any biological process



man does not have to understand in other than it may function smoothly, yet the process of adjustment may be subjected to human enquiry and a better understanding it can lead to improved methods of controlling it."<sup>24</sup>

Thus, adjustment is a continuous process of life which changes human behaviour for harmonious relationship between himself and the environment. It may be that in this process an individual can adopt himself to the environment or alter it which ultimates in a well - adjusted personality. If an individuals experiences have so shaped his personality that he is well prepared to play the roles which are expected of the status assigned to him within a given environment, and if his basic needs are met by playing such roles, we say that he is well - adjusted. On the other hand, if experiences have not prepared him to play the role of his assigned status, and his fundamental needs are not met, we can say that he is mal-adjusted.

In the present study has been focussed only on three areas of adjustment, viz, Emotional adjustment, social adjustment and Educational adjustment.

#### Emotional Adjustment :

Emotional implies a state of being stirred up or aroused in one way or the other. The extent, to which an individuals urges and interests are satisfied, is basic to the kind of emotional adjustment that is likely to result. An emotionally adjusted person is comparatively free from tensions, worries, strains stresses, conflicts and is stable in his behaviour.

**Social Adjustment :**

Social adjustment means adjustment of individuals their social groups. It provides an index of their social relations and popularity. It reduces their tensions, makes them happy and socially efficient. They are unselfish and concentrate on their duties they do not like to enjoy special privilages.

**Educational Adjustment :**

Educational Adjustment indicates how for a student is satisfied with the school administration and general educational facilities and how far a pupil or student feels interested and participates in the co-curricular activities and experiences attached to the school.

**Vocational Interests :**

Vocational interests is defined as one's own pattern of preference, attitude of likes and dislikes towards things and activities of vocational significance. These attitudes play a significant role in the life of an individual. They influence the life-adjustment in general and vocational adjustment in particular. The importance of vocational interest in life adjustment becomes significant and this lays emphasis on the study of vocational interest of our student community who will occupy different positions in the vocational fields after completing their studies. Vocational adjustment leads to dissatisfaction

with one's life and a person engaged in a vocation not directly or indirectly satisfying his/her disposition, fails to fulfil the vocational expectations. The vocationally maladjusted individual is a nuisance in the organism where he works and an uncompromising person in his own family. Some psychologists defined vocational interest as the expression of the likes and dislikes of an individual in terms of the scores obtained in different fields on the proposed interest schedule. Vocational interest pattern generally have a substantial degree of performance at the adolescent age; for most persons, adolescent exploration is an awakening to something that is already there. The late adolescent period i.e. 15-18 years of age is more crucial as formative years of life for future job vocational selection. Vocational interest is a relationship between the interest and ability as indicated by vocational choice. It always corresponds to the capacity of a person to perform vocational interest and assists the individual to choose the vocation, prepares for it and makes a progress in it. Now the society has so advanced that the stages of technical development have crossed the boundaries of industrialisation, automation and has entered the world of cybernetics. With the advancement of society and industrialisation, the vocations have not only been multiplied, but has also been complicated; and diversified. Today the task of vocational preference therefore, has

become very difficult for the adolescents. They are at the cross-road. The young men are thus required to equip themselves with the knowledge and training to make themselves fit for different types of vocation. The youth of today are the occupational or vocational elite of tomorrow, It is on their present decisions that the fate of industry, commerce, politics, professions, arts & science and the educational system of the future hinges. Under such circumstances it has become essential to understand them adequately before any plan can be made to help them, to adjust to the roles of emerging adult society. Thus, the vocation is of paramount significance to the normal adolescents who are on the threshold of adult life and adult responsibility. Vocation gives them sense of security. For this purpose our country has established certain centers and bureau of vocational guidance.

#### ACADEMIC ACHIEVEMENT :

Academic achievement is the unique, prime and perennial responsibility of a school or any other educational institutions established by the society to promote a wholesome scholastic growth and development of a child. The greatness of it depends upon the quality and quantity of scholars and intellectual robots it produces. Its brilliant records are deemed to be the most widely used index of its worth and success. Intellectual superiority plays a prominent role in determining the limits of

academic - achievement. Even some theorists went to the length of assuming perfect correspondence between the creativity and academic achievement of students. The high creative children mostly are destined to be high academic achievers. High academic - achievement is not possible for an imbecile, moron or for a person devoid of creative abilities. Creativity tests pave the way to academic aristocracy. Due to their importance in scholastic achievement, they are known as 'Scholastic aptitude tests'. Literature on academic performance shows that students Creativity relates more to their level of achievement than any other characteristics. Creativity as measured by tests has been found to be the most potent factors of scholarship. The scholastic standing of a student in any particular class during terminal examinations might also influence the realistic choice of students.

Academic achievement generally refers to the degree of level of success or that of proficiency attained in some specific are concerning scholastic or academic work. In view of several authors such as C.V. Good and A Biswas and Agarwal<sup>25</sup> there seem to be considerable similarities in as such as all of them place emphasis on knowledge attained or skills developed in the academic subjects usually designed by the tests scores. It is different from proficiency in the areas of different arts or physical skills. Academic or educational age, accomplishment quotient or achievement quotient are the most commonly

used means to interpret the level of academic - achievement of students in general or in specific given subject matter. Academic - achievement is always affected by multi-dimensional behaviour and environmental correlation. Here the percentage of total works in all subject constitute the academic achievement of a student.

#### SIGNIFICANCE OF THE STUDY :

A developing democracy often makes the mistake of concentrating on the expansion of education alone and providing equal opportunities to all. But these 'equal opportunities' do not always happen to be suitable to or appropriate for every individual for the term 'equal' often loses its true connotation in practice. It often turns out to be 'similar' or even 'identical' opportunities for all. Thus, a misunderstood democratic philosophy of education often results in a system of education designed for the low creative child. Such a system ignores the scientifically established facts about individual differences in learning and turns out to be a miserable failure in meeting the needs of the individuals at the extremes of the distribution of abilities i.e. the backward and the creative.

The study will help us to find out what type of adjustment the creative students hold. With the help of comparisons we will be able to report whether or not the high creative are better adjusted than the low creative. The adjustment problem is of great importance. It can

leave its marks on the personality of an individual. It is essential for the present society to recognise the creativity to study the different aspects of their personality. The high creative child is no more an enigma because through psychological & scientific research we have come to know a great deal about him. We still need to know what he thinks of himself ? Is he satisfied with his present conditions ? In comparison to low creative individual, is he more adjusting or less, is he surpassing their counterparts in academic- achievement and is he getting better vocations or not ? A difference in these two groups - will show the effect of creativity on their adjustment, vocational interest and even academic-achievement. This will enable us to understand the adjustment problems, vocational interests of the creativity. Social and educational environment will also matter much in the adjustment and education of the creativity. A comparison of these two group on the adjustment factor also will be of utmost importance, as the wholesome adjustment of every individual is the objective of education. Obviously, it is the creative who are in future to guide the destiny of a nation, therefore, their adjustment problems would be helpful not only to themselves as individuals but also to the society which cultivates them and expects much of its geniuses. This study is hence of much significance to consider this dimension of personality.

Moreover, this study will be of significance from psychological, educational and guidance point of view; since adjustment, academic-achievement and vocational interests of an individual are more or less correlated. Academic achievement depends on adjustment and for the vocational plants one has to take into account the adjustment of an individual along with the other aspects of personality.

The significance of the problem in selecting, on the other hand, the students reading in class XI instead of XII is more valuable in the sense at least that this study is completed in two sessions. The adjustment and vocational interests of the high creative and the low creative students are compared in two sessions i.e. the students reading in XI Class were administered the Adjustment Inventory and Vocational Interest Record in Session 1993-94. The same tests were repeated on the same students who have passed XI class and came in XII class in Session 1994-1995. Further, this study is significant in the sense that it is after XII class the student is to join one of the following courses :

1. Science subjects.
2. Arts subjects.
3. Commerce subjects.
4. Agricultural subjects.
5. M.B.B.S. course.



6. Engineering course.
7. Technical course.
8. Industrial courses.
9. Other professional courses.

Hence, guidance at this stage becomes quite indispensable because the students find themselves at a loss as to what to do. Although, like all other advanced countries of the West, India has also started towards the diversification of studies at the higher secondary stage of education, yet at this stage (after the student passes his Class XII examination) he has to select one of the courses. Therefore, he is placed in a bewildering stage where he is least informed of his capacities and aptitudes which may suit his best to some specific course of study to be selected. The choice of a course at this stage requires some knowledge about the personality characteristics one is possessed of. Since our topic is concerned with the study of some personality characteristics -- adjustment, vocational interests, it is most significant.

Further, this study will help the guidance workers in two ways. First, it will discover the suitability of student's personality make-up for his educational and vocational choice. Secondly, it will identify those students whose personality characteristics are blocking the development of their potentialities. Thus, this study will help the teacher, Counsellors as well as

parents in identifying the high creative or only creative and educating them effectively. It will not be misnomious if I say that the findings of the study will be of great value to humanity.

Though, in India and other Countries a lot of work has been done on different aspects of the creativity, no study so far been made regarding the comparative study of the high creative low creative in relation to their adjustment, vocational interests and academic- achievement. Therefore this topic seem quite appropriate and justified to persue the investigation.

#### OBJECTIVES OF THE STUDY :

The following objectives have been laid down as the specific objectives of the present study :

1. To identify high creative and low creative students from the sample, by the creative test.
2. To find out whether high creative and low creative students differ significantly on the basis of their adjustment.
3. To find out whether high creative and low creative students differ significantly on their vocational interests.
4. To find out whether high creative and low creative students differ significantly on their academic achievement.
5. To compare high creative and low creative groups respectively on the basis of sex in relation to their adjustment, vocational interests and academic-achievement.

6. To compare these two groups respectively regarding their subject groups (Faculty) on different variables.
7. To compare these two groups in two academic sessions regarding their adjustment and vocational interests.
8. To find out the correlation among adjustment, vocational interests and academic-achievement of high creative students.
9. To find out the correlation among adjustment, vocational interests and academic-achievement of low creative students.
10. To offer further suggestions based on the findings of the study.

#### **HYPOTHESES :**

The following hypotheses were formulated subject to the statistical inquiry :

1. There are significant differences between high creative and low creative students on the basis of their adjustment problems-- emotional, social and educational
2. There are significant differences between high creative and low creative students in relation to their vocational interests.
3. There are significant differences between high creative low creative students on the basis of their academic-achievement.
4. The adjustment, vocational interests and academic-achievement of high creative students and low creative

students do not differ significantly on the basis of sex.

5. The adjustment, vocational interests and academic-achievement of high creative students and low creative students do not differ significantly on the basis of subject selection i.e. faculty.
6. There are significant differences in the adjustment, vocational interest and academic-achievement when high creative group and low creative group are compared longitudinally i.e. the same groups are compared on the same variables in two academic sessions.
7. There is a correlation among the adjustment, vocational interests and academic-achievement of high creative students.
8. There is a correlation among the adjustment, vocational interests and academic-achievement of low creative students.

**BASIC ASSUMPTIONS :**

The present project is based on the following assumptions :

1. Verbal test of creative thinking by B. Mehdi.
2. Adjustment Inventory for school students (AISS) is a valid and reliable measure of adjustment.
3. Vocational interests exist in a lesser or greater degree in all human beings which can be recorded by Vocational Interest Record. It is a more valid and reliable test. It measures vocational interests of

students and enables them to select such courses and subjects for further study and for job selection as are according to their preferred vocations.

#### PLAN OF ATTACK

##### Study of the Related Literature :

An up-to-date knowledge about the work already done by other researchers in the field of research related to the problem had formed an integral point to the investigator's cognitive equipment. A survey of the related literature is presented in Chapter II -- 'Review of the Related Literature' of this project. A bibliography based on this survey, was prepared comprising books, journals, encyclopaedias etc. and is attached here to wide appendix of this report.

##### Delimitations :

Keeping in view the conditions prevailing, practical aspect of time and available resources, the study is delimited in terms of content and sample. In term of content only three variables i.e. adjustment, vocational interests and academic-achievement of the high creative and low were studied. The sample was selected from the urban educational institutions of Moradabad district. Only XI Class students was taken up for investigation because guidance would be most valuable at this stage. Due to sources available the final informations about their vocational interests and adjustment were collected only from 528 students including both sex i.e. male and female,

which formed the sample of the present study. It included both science subjects group and arts subjects group. All the tools used by the researcher are applied to the groups. While studying the adjustment of the high creative and the low creative groups only emotional, social and educational aspects would be studied. The study was completed in two sessions as both groups were compared separately regarding their variables in two sessions i.e. 1993-94 and 1994-95, to know the stability or whether there were certain changes in the adjustment and vocational interests of the same students or not.

#### Population :

By population we mean the group to which our inferences will apply. There are near about 100 Intermediate colleges in Moradabad district and approximately 20000 students of XI class are studying in these institutions.

#### Sample :

The sample for the present study consisted 528 first year class students of Arts, Science faculty from different colleges/schools of this district. Both the sex were included in the study. The sample was random. Creative test was used as a criteria for selecting the high creative and low creative students.

#### Tools Used :

The following tools were used by the researcher to collect the data for the study :

a. Creative Test

- By Dr. B. Mehdi

b. Adjustment Inventory for School Students.

By Dr. A.K.P. Sinha & Dr. R.P.Singh

c. Vocational Interest Record.

By Dr. S.P. Kulshrestha.

d. Achievement Test - The percentage of total marks of High School examination of the students of both the groups has been taken as a measure of academic-achievement.

#### Data Collection :

The data was collected from different colleges which were selected on the basis of random sampling techniques with the help of above tools.

The data were collected from these two groups two times. First the subjects were administered adjustment Inventory and Vocational Interest Record in his first session when they were studying in first year and on the next time when they came in XII class after passing XI class, the same tests were repeated again.

#### Scoring and Tabulation of Data :

Tests, inventory and record's answer book-lets were scored with the help of the key provided along with the manual of different tests. Then, the data were tabulated groupwise.

#### Analysis and Interpretation :

After collection, the data were analysed and interpreted by the researcher herself. Various statistical techniques such as mean, standard-deviation, Critical ratio ('t' ratio), Correlation (r) and F test were applied with a view to the analysis and interpretation. The meanings were discussed in the light of various studies.

### Conclusions and Suggestions :

Conclusions were drawn on the basis of analysis and interpretation of the data. The hypotheses and their related objectives were examined in the light of the study. Some suggestions were also made for further studies with a view to improving the education and giving proper vocational guidance to creative students.

### Further Work :

In the end, some suggestions for further research were also offered, as no research is complete within itself.

### The Report :

The report of the study is submitted under various heads and chapterswise form as given below :

- i. Acknowledgement
- ii. Contents
- iii. List of Tables
- iv. List of Figures

### Chapters :

- I. Introduction
- II. Review of Related Literature
- III. Method and Procedure
- IV. Analysis and Interpretation
- V. Findings and Suggestions

Summary

### References :

- i. Bibliography
- ii. Appendices



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CHAPTER - II : REVIEW OF RELATED LITERATURE

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## CHAPTER - II

### REVIEW OF THE RELATED LITERATURE

After the problem had been stated clearly, it is very necessary for a researcher in any field of human knowledge to have an complete and up-to-date knowledge about the work already done in her/his country and abroad in specific area of her/his research. It develops her/his insight into the problem and saves her from unnecessary trial and errors. With this aim a number of books, journals, bulletins, year books, theses and encyclopaedias were consulted in the libraries of various universities and colleges. In the following pages an attempt has been made to present briefly a few of important researches and studies conducted in India and abroad (Foreign), as they had significant bearing on the present project.

#### STUDIES ABROAD :

In ancient Greece, over 2000 years ago, Plato advocated that the first duty which the Gods have placed upon the rulers is to scrutinize every child from birth and see what of metal enters into the composition of their souls; they were then to select all the children of gold, whether they came from parents of gold or silver, iron or even brouze. He also suggested to offer them a specialised form of instruction in science, metaphysics and philosophy. In the 16th century, Sullimen made special

efforts to identify the gifted Christian Youths throughout the Turkish Empire and provide them with education in the muslim faith, in war, art, science and philosophy. Nevertheless, no attention has been paid to the creative during any period of history; if any interest was shown in them, it was informal, inadequate and unsystematic. Galton's book on Heredity Genius was published in 1869 and this stimulated the thinking of the public. For the first time in history, the problem was deal with Scientifically. Galton's work marked the beginning of an era of strong interest in individual differences. The beginning of the 20th Century saw a change in the interest of the people in the creative child. The effort was not strong and enough, yet it started the campaign. During the 19th and 20th centuries little organised effort was made in Europe to select the creative children or to offer them special education. The recent public interest in the special education of the creative child in the United States of America stems from a number of national and international situations. But during II World War, the general neglect of education resulted in an even greater deprivation for this group. A few studies related to the present study in foreign are worth mentioning here :

#### STUDIES IN FOREIGN:

Marrifeeld and Guilford (1957)<sup>1</sup> found that individuals high in fluency, were high in impulsiveness, confidence

and ascendance. Individuals with higher scores on originality, are more interested in aesthetic expression, irreflective thinking and divergent thinking. These findings are supported by other investigators also.

Barron (1965)<sup>2</sup> reports that persons scoring high on tests of originality are also high on fluency, intelligence, intellectual orientation, confidence, non conformity, preference for complexity, flexibility and quickness.

Cattell (1959)<sup>3</sup> attempted to study the personality and motivation. He found the creative scientists to be highly intelligent, independent and dominant. In comparison to the general population, these scientists were found to be introspective, reserved, cool and self sufficient. The average level of ego-strength, and emotional stability is distinctly higher in the creative scientist than for the general population.

Helson and Gough (1961)<sup>4</sup> found that creative mathematicians and scientists were of quite high intelligence, stable and had high ego strength and independent in judgement.

Getzels and Jackson (1962)<sup>5</sup> had taken a sample of 26 high creative and 28 high intelligent adolescents selected from a group of 449 High School students on the basis of their performance. They found that creative group had more wide ranging interests, sense of humour and emotional stability.

Taylor and Hollend (1964)<sup>6</sup> described the personality characteristics of creatives as autonomous, self sufficient, independent in judgement, more stable, more dominant, self assertive, more self accepting, more resourceful and adventurous, emotionally sensitive, self controlled, introvert and bold.

Barron (1965)<sup>7</sup> worked on creative writers and mathematicians and found that creative mathematicians are significantly different from the representative of their professions by being individualistic, artistic, courageous, emotional, imaginative and self centered. The creative mathematicians are high, both on theoretical and aesthetic values. The creative writers possessed a high degree of intellectual ability, verbal fluency and aesthetically reaching tendency. They possessed a high level of aspiration. A wide range of interests and an unconventional thought process.

Ringness (1967)<sup>8</sup> studied the identification patterns, motivation and school adjustment of bright Junior High School boys. He identified the bright boys with I.Q. 116 or above and studied their motivation and school adjustment.

Bunning (1969)<sup>9</sup> investigated the relationship between children's personal social adjustment and their perception of adult non-verbal behaviour. The study did not find difference between the poorly adjusted and better adjusted children in their attentiveness to non-verbal ones.

Generally, however, better adjusted children reported significantly more than the poorly adjusted children that they understood important adults non - verbal communication and that important adults often told them in words of when they were pleased with them.

Gilchrist (1970)<sup>10</sup> reported in his investigation that high creative students were found unconventional willing to take risk, impulsive, observant, imaginative idealistic, concerned with beauty and having wide range of interests.

Munroe (1970)<sup>11</sup> is an attempt to know that nature of creativity showed that the more creative painters had stronger self image, a sense of doing something different to talk more freely and to possess a rich fantasy life. He found a marked differences in their work habits.

Louis (1974)<sup>12</sup> had conducted a study on the relationship between differential family patterns and the academic adjustment and achievement of public elementary school pupils. He found that elementary school pupils from homes with customary family patterns tend to be academically better adjusted than elementary school pupils from homes with differentiated family patterns.

Boring (1975)<sup>13</sup> studied the effect of school setting, race and sex on the occupational interests of the students. The findings revealed that school setting had no observable effect on the occupational interests of the



students while sex and race had a significant effect on the occupational interests. However, sex had stronger effect than the race.

Bistochoi (1981)<sup>14</sup> had studies the effect of enviornment on creative thinking. The evaluation of creative thinking in this study was associated with Guilford's structure of intellect model. The four basic factors of divergent productions were: fluency, originality, flexibility and elaboration.

Peterson (1982)<sup>15</sup> studied the relationship of family structure to adjustment of school children. He found that the children with two parents were found better adjusted than those children with one parent.

Mathews (1984)<sup>16</sup> investigated the relationship among temparement, school adjustment and cognitive ability, school adjustment was assessed by teachers rating on the 'Briston Social Adjustment Guides : Intelligence was measured by the 'Stanford Binet Intelligence Scale : It was found that gifted children tend as more as adaptable than non gifted children.

#### STUDIES IN INDIA :

Patel and Parikh (1961)<sup>17</sup> found the significant correlation coefficient between the three areas of adjustment viz. emotional, social and family.

Kakkar (1964)<sup>18</sup> studied the adjustment problems of adolescent boys and girls of XI class. The results

obtained that 43% cases had serious adjustment problems; the school area possessed the greatest number of problems while in home area the adolescents were over dependent on parents. Girls accepted parental control but boys.

Rao (1965)<sup>19</sup> investigated the adjustment problems of teacher's trainees. He found that they have both, educational and social problems. The former one area of mild nature while the school problems are very serious and need immediate solutions.

Bhagia (1966)<sup>20</sup> investigated the problems of school adjustment and constructed an adjustment inventory. He found that girls exceeded boys significantly in their adjustment in general to general environment and organisational aspect of the school. He also concluded that private school pupils were significantly better than government school pupils in their adjustment to the teacher.

Badami (1967)<sup>21</sup> studied the adjustment problems of students in arts, science and commerce colleges in the city of Ahmedabad. He found that there is no significant difference between total number of problems marked by boys and girls, but there is a difference between the two groups regarding the nature and types of problems. He also observed that there is significant difference between the total number of problems faced by the students under the faculty of arts, science and commerce.

Singh (1967)<sup>22</sup> investigated the relationship of intelligence, achievement, motivation manifest anxiety, extraversion, introversion and neuroticism or emotionality with the academic-achievement of the students. He found that (i) high and low-achievers were significantly discriminated (beyond .01 level) on all the variables namely- intelligence, achievement, motivation, manifest anxiety, extraversion, intra-version and emotionality; (ii) Science students scored significantly higher on the intelligence test than the art student; (iii) intelligence and academic-achievement were significantly related (beyond .01 level) and (iv) academic achievement was found to be positively and significantly related to achievement motivation and manifest anxiety at .01 level and with extra version, introversion and neuroticism at .05 level.

Saxena (1967)<sup>23</sup> studied the needs, reactions to frustration, adjustment and vocational interest of the super normal, normal and sub-normals. He found the results that (i) super normal girls and boys possessed a high capacity to face frustrating situations and to adjust to the normal group; (ii) correlation between intelligence and different fields of adjustment for boys were .51 for Home; .43 for Health, .25 for social, .28 for Emotional and .48 for total adjustment; (iii) the correlation between intelligence and different fields of adjustment

for girls were as reported by Home .43, Health .28, Social .21, Emotional .22 and Total .41 and (iv) Vocational interest and intelligence had no relationship.

Shah (1969)<sup>24</sup> conducted a survey of the superior children in the state of Gujrat in respect of socio-economic status occupational interests and anthropometric characteristics. The sample included 356 pupils securing more than 70% marks in S.S.C.Examination. Comparison were made between the superior pupils and average pupils & superior pupils and superior adults numbering 33.

Grewal (1971)<sup>25</sup> studied educational choices and vocation preferences of secondary pupil students in relation to environmental process variables. Comparisons were made between different groups of students offering science, agriculture, humanities, home-science and commerce as electives. Vocation environment scale, vocational plans questionnaire and Joshi's General Mental Ability Test were used for data collection.

Nalini & Basavanna (1972)<sup>26</sup> worked on 100 post-graduate and 150 graduate students using Thurston's Interest Schedule, Army General Classification Test and Socio-economic Status Scale to collect the data. They found that high intellectuals were interested in physical and biological sciences; low intellectuals interested in linguistic, persuasive, humanitarian, artistic and musical fields; and student belonging to educated parents

interested in physical and biological sciences and linguistic fields. Many students from engineering background preferred physical science.

B. Mehdi (1973)<sup>27</sup> - Mehdi's test battery is found very useful to identify creative talent at all stages of edu., except preprimary and primary. The type of tests included in the test have been chosen so that they could be most easily and economically administered over a wide range of sample starting from middle school and going up to the graduate levels. In 1974, Chauhan and Tiwari<sup>28</sup> also developed a creativity test. A much more comprehensive test on the lines of Torrance was developed by Passi<sup>29</sup> (1979) which has both verbal and nonverbal performance activities. The test, standardized on high school students, was correlated with 'Things Done on your Own' (a check list adapted from Torrance's check list). The author has provided norms for rural-urban and sex groups.

Gaur (1974)<sup>30</sup> conducted his study on the factors affecting the occupational aspirations of adolescents. He found that there existed a significant difference between the level of occupational aspiration of intellectually superior and average students. The boys and girls did not differ significantly in their occupational aspiration levels. A significant relationship was found between socio-economic status and level of occupational aspiration. While the

relationship between organisational climate of a school and level of occupational aspiration was not significant. Joshi (1974)<sup>31</sup> studied the creativity and some personality traits of intellectual gifted high school students. The study employed descriptive correlational survey method of research. The pupils with I.Q. 120 and above were termed as gifted children. The Torrance's Creativity Test and Cattell's 16 Personality Factor Test were administered to these pupils. Annual examination marks were treated as their achievement scores. The following were important findings: (i) giftedness was the most effective contributor to all types of creative scores; (ii) age has an important correlation with creativity at 15 years age level; (iii) none of the main effect of I.Q., age and sex upon the personality factor A; (iv) giftedness was contributing to emotional maturity in case of boys; (v) there was positive but low significant correlation between intelligence and all types of creativity scores and (vi) almost all creativity scores had low positive correlation with achievement scores in all school subjects except English.

Katiyar (1975)<sup>32</sup> carried out a study of values and vocational preferences of Intermediate class students of U.P.. He used Sherry and Verma's Personal Values Questionnaire and Thurstone's Interest Schedule. The study aimed at (i) to compare the vocational preferences

of the students of different courses of study, religion, Hindu caste group, level of parent's income, level of father's education and profession and (ii) to study the relationship between values and vocational preferences of students. The results reveals that students were high in democratic, social, knowledge value while medium in health and religons. The students of very high income group were higher than the very low income group.

Kamlesh (1975)<sup>33</sup> studied the relationship among creativity, intelligence, adjustment and value patterns. She did not find any significant relationship between creativity and adjustment.

Some major adjustment problems of school age children have been studied by Nagaraja (1976)<sup>34</sup>. Emotional maladjustment of the students has been worked out by Marfatia (1976)<sup>35</sup>. Behaviour modification in students has been reported by Arora and Srinivas Murthy (1976)<sup>36</sup>.

Shanker (1977) and Rao (1978)<sup>37</sup> have found that the students from poor families have lower self esteem.

Kundley (1977)<sup>38</sup> and Dharmangadan (1981)<sup>39</sup> have developed creativity tests in regional languages. Tara (1981)<sup>40</sup> has adapted Mehdi's verbal and nonverbal test of creative thinking in Kannada. Sengupta (1982)<sup>41</sup> has administered the 'Purdue Creativity Test' to an Indian sample. The test retest reliability of this test with a time of 5 months was found to be 0.74. Similarly Asha (1983)<sup>42</sup> has

developed a creativity test battery for Malayam students.

Goswami (1978)<sup>43</sup> studied self-concept of adolescents and its relationship to scholastic achievement and adjustment. The main objective of the research was to study the self concept of school going adolescents in relation to their sex, scholastic achievement, intelligence and adjustment. The results were that (i) self-concept and intelligence had a significant positive correlation and (iii) Self-concept and adjustment again had a positive correlation.

Yadav (1979)<sup>44</sup> studied the role of intelligence, scholastic achievement, socio-economic status, values and needs as motives for vocational preferences. The descriptive method of research was used. Thurston's Interest Schedule, R.K. Tandon's Group Test of Intelligence, Jalota & Kapoor's Socio-economic Status Scale Questionnaire, Personal Values Questionnaire by Sherry & Verma and Tripathi Personal Preference Schedule. The findings of the study were that (i) intelligence had positive relationship with vocational preferences of art students in physical science, biological science, executive, computational, persuasive, linguistic, humanitarian and artistic areas while for science students the relationship of intelligence with vocational



preferences in physical science, biological science and computational areas are negative; (ii) Scholastic achievement had positive correlation with preferences in biological sciences for art students and negative correlation with preference in biological sciences, executive, presuasive, linguistic and computational areas for science students; (iii) the most preferred vocational fields for adolescents were executive, linguistic and physical science while least preferred were musical, artistic and biological science areas and (iv) Among the values family prestige, health, bedonistic, democratic and aesthetic were significant motives for vocational preferences of adolescents.

Sreecatta and George (1981)<sup>45</sup> have studied the effect of creative teaching on creative thinking of adolescents. As in the previous studies of cognitive development, they too found that creative teaching does have a positive impact on scores of creativity tests.

Verma, J. (1982)<sup>46</sup> has reported that high creative students have more organizational capacity, superior intellect, rich responsiveness to their environment, more fertile imagination, inner stability and they were free from frustration. They have a wide range of interests and high level of aspiration.

Sharma (1983)<sup>47</sup> studied that self-concept and adjustment affected the academic-achievement. The sample of 1060

students of both girls and boys between age of 13-18 was drawn by random sampling from class X to XII. Ahluwalia's Self-concept Scale, Asthana's Adjustment Inventory, Rating Scale and Personal Data Schedule had been applied as tools. The results revealed that the self-concept affected academic-achievement. Adjustment did not influence academic-achievement.

According to Agarwal and Powar (1983)<sup>48</sup> adjustment scores were found to correlate significantly with intelligence, creativity, S.E.S. and anxiety. Also intelligence appears to be an important predictor of adjustment.

Patel & Parikh (1984)<sup>49</sup> conducted their study on the relationship between identification patterns and academic-achievement of talented students. A sample of 960 students from 24 high schools of Gujrat State was selected randomly. The subjects were divided into three groups- talented, average and below average on the basis of I.Q., teachers' ratings, behaviour check list. The design of this study was 2x3 factorial consisting of two levels of sex and three levels of talentedness. There were 160 subjects in each of the six cells. The subjects were given group intelligence test and Behavioural check-list in the first session and identification patterns check-list in the second session. The results revealed that academic-achievement varied directly as a function of the degree of talent in both the boys and girls and no significant

relationship was found with the identification patterns and academic achievement.

Mehta & Bhatnagar (1984)<sup>50</sup> studied the interests of boys with their superior scholastic ability. The approach was to develop understanding of some of the characteristics of superior scholastic ability by comparing them with boys of average scholastic ability. Interests were assessed through Chatterji's Non-language Preference Record, Standardised Inventory of Kuder type by using stick figures. Data on academic-achievement consisted of total marks secured in the Higher Secondary Board Examination. Boys achieving above the median were categorized as high-achievers, the rest as low-achievers. The results of the study were : (i) the S.S.A. were higher on scientific, technical, crafts than the average while lower on fine arts, household works; (ii) art students scored the highest on the fine arts, sports and household while science students preferred technical subjects and (iii) There was a great deal in common between the interests of SSA and the average boys. In both groups scientific, technical and medical were the three highest ranking interest areas though in the average group literary area lies in the third place with medical.

Rawal (1984)<sup>51</sup> attempted to study the vocational interests of girls and boys students of Intermediate level of Almorah city. The study involved 400 students (200 boys

and 200 girls) studying science and art subjects. Vocational Interest Record of Bansal & Srivastava was used to assess the Vocational Interest of the students. It was found that the boys and girls differ significantly in their vocational interest. Boys have tended to give preference to agricultural, artistic executive, literary and scientific jobs, while girls preferred social, commercial and jobs related to household works. Students belonging to science group have shown their interest in technical and science vocations whereas arts students in artistic and literary vocations.

Chandra & Gupta (1984)<sup>52</sup> studied adjustment differences among high intelligent and low intelligent and low intelligent adolescents. The study reveal that in all the areas of adjustment, high intelligent adolescents were comparatively better adjusted than their low intelligent peers.

Kundu (1984)<sup>53</sup> conducted an empirical study of creativity ego strength and extraversion. His main finding was that creativity was negatively and highly related with psychoticism and the individuals high on ego strength were more creative than those low on ego strength.

Pandey & Pandey (1984)<sup>54</sup> studied creativity in relation to sex of High School students. The sample constructed of 400 students drawn from twenty five high

school and intermediate colleges of Kumaun division. The same selection was made randomly. In his study they find out that there is no sex difference in respect of various creativity factors.

Sontakey (1985)<sup>55</sup> found in her study that motivation principles were most potently operative to determine the behaviour of high and low achievers. Murray's statement "No brain, no personality" (Murrey, 1959)<sup>56</sup> was supported by the data obtained in her study. High achievers were charged with a high level of motivation of realise higher goals in their lives.

Asthana (1988)<sup>57</sup> found that High creative girls were less anxious than low creative girls. The anxiety of high creative girls was of moderate level and in low creatives it was higher.

Singh and Kumar (1988)<sup>58</sup> had made an investigation and found that emotional security is significantly contributing towards the high flexibility scores. Also emotional health of the subjects seems to be a potent factor in the development of fluency as a component of creativity.

Sinha, Trivedi & Gupta (1988)<sup>59</sup> have studied that scholastic achievement was significantly associated with intelligence socio-economic status and other family variables.

Trivedi and Sinha (1989)<sup>60</sup> had studied the emotional problems of high and low achieving students and

found that high achievers scores significantly higher on neuroticism than low achievers. Singh (1989)<sup>61</sup> studied the relationship between rigidity and adjustment in old age. He found that high, middle and low rigid groups did not differ significantly on health and emotional adjustment are as. The low rigid olds showed superior home adjustment. The high and low rigid groups had almost similar level of superior social adjustment. The study did not reveal any definite relationship between rigidity and adjustment. Bajwa & Setia (1994)<sup>62</sup> studied academic performance in relation to intelligence, self concept and achievement. The sample constructed of 100 students randomly from there English medium school in Punjab. In her studies they found out that academic performance is positively and significantly related to Intelligence and self concept it was also observed that academic performance of students with high Intelligence in significantly better than students with low intelligence.

In the view of the above all these researches and projects, the investigator attempted to study the creativity with a new angle. No study has so far been made in this direction in our country regarding the comparison of the high creative and the low creative in relation to their adjustment, vocational interests and academic achievement. These relatively unexplored researches, in addition to others were the basis for the present study.

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### CHAPTER - III : METHOD AND PROCEDURE

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## CHAPTER - III

### METHOD AND PROCEDURE

The problem under investigation is 'A comparative study of high creative and low creative students in relation to their adjustment, vocational interests and academic-achievement'. In such study neither any previous research nor any type of experimentation can be helpful in gathering the required informations. As a matter of fact, such informations can be collected only by administering certain standarised tests. In order to reach the meaningful conclusion the procedure, therefore, needs certain decisions on the following points :

#### DESIGN OF THE STUDY :

The whole project was so organised that it could be carried out systematically. With this view, the following steps were taken :

- a. Suitable tools were selected.
- b. The collected data were classified into following groups i.e. male/female, arts/science.
- c. Only XI class students of different colleges of Moradabad District were taken for this study.
- d. Selection of the high creative and the low creative students was done with the help of standarised creativity tests.
- e. Assessment or measurement of adjustment and vocational interests of the selected groups was

done with the help of standardised tests and inventories.

f. The collected data were treated statistically

#### RESEARCH METHOD

Since the purpose of the study was to compare the high creative and the low creative on certain variables - adjustment, vocational interests and academic-achievement, the researcher applied the 'Normative Survey Method' in her study.

#### SAMPLE :

Students studying in Class XI were taken for the purpose of the study. They were taken from different intermediate colleges of Moradabad District. But complete and final informations could be available from only 528 students including male & female. Both the faculties - arts and science, in which students were studying, were included in the study. The number of students constituting the final sample was 147 of which 30 were the high creative and the rest were the low creative. Both the groups were selected on the basis of creativity test. The sample was random.

#### TOOLS USED :

As mentioned earlier, the present study consists of three variables. The researcher is presenting here a brief description of these tools used for measuring the variables. The following tools were used to collect the necessary informations from the students:



- I. Creativity Test by - Baqur Mehdi
- II. Adjustment Inventory for School students (AISS) By Dr. Sinha & Singh.
- III. Vocational Interest Record (VIR) by Dr. Kulshrestha
- IV. Academic - achievement Test.

#### TOOL NO. I CREATIVITY TEST

##### SELECTION OF CREATIVITY TEST :

The most popular tests which are widely used for measuring creative potential are those of Torrance (1966<sup>1</sup>, 1970), Guilford (1959)<sup>2</sup>, Mednika (1962)<sup>3</sup>, Wallach and Kogan (1965)<sup>4</sup> etc. These foreign tests and their adoptions have been used by the Indian researchers but the norms of these foreign tests were not considered suitable for the Indian tests population. Besides, there are some items in these tests of creativity which are not suitable for Indian subjects. Because of these limitations of foreign tests, the investigator decided to select a most suitable test among the creativity tests made by the Indian researchers. The following table shows the relevant particulars of the Indian creativity tests mainly prepared and used by the Indian researchers for Hindi speaking students:

TABLE NO. - 3.1A COMPARATIVE STATEMENT OF THE PARTICULARS OF THEINDIAN CREATIVITY TESTS

S.No.	Name of the test	Level	Reliability	Time required
1.	Passi Test of Creativity Verbal and Non Verbal (by Dr. B.K. Passi)	Higher Secondary	.68-.90	80 Minutes
2.	Creativity Test By Dr. Chauhan & Tiwari	Higher Secondary University	.97to .831	3 Hours
3.	Creativity Test (by Dr. Pandey & Pandey)	High School	.934	57 Minute
4.	Majumdar Scientific Creativity Test (by Dr. S.K. Majumdar)	Higher Secondary	.57to.76	--
5.	A battery (Verbal and Non-verbal) of Creativity tests (by Dr. B. Mehdi)	All levels above Primary	.653 .to .981	48Minutes 35Minutes
6.	Verbal and Non-verbal Batteries of MIER tests of creativity (By Dr. A.K. Gupta)	12to17 Years		57Minutes
7.	Test of Creative thinking (By Dr. Gurbaksha Lal)	Teacher Trainees		35Minutes

Among the above mentioned tests, "A Verbal Test of Creative Thinking" prepared by Dr. Baqar Mehdi (1973)<sup>5</sup> was selected by the investigator instead of the complete battery including both the verbal and non-verbal tests because it was sufficient to serve the purpose of the present study. This verbal test of creativity has been successfully used to identify the creative pupils recently by R.P. Singh (1979)<sup>6</sup>, Agarwal (1983)<sup>7</sup> Chandra (1985)<sup>8</sup>, Santosh Tyagi (1990)<sup>9</sup> in their doctoral dissertation.

TABLE NO. - 3.2

THE TEST-RETEST RELIABILITIES OF FACTOR SCORES AND THE  
TOTAL CREATIVITY SCORES, N = 31°

Fluency	Flexibility	Originality	Total Scores
0.945	0.921	0.896	0.959

TABLE NO. - 3.3

VALIDITY CO-EFFICIENT FOR FACTOR SCORES

Fluency	Flexibility	Originality	Total Creativity Scores
0.40	0.32	0.34	0.39

The use of the complete battery would have consumed more time and money of the investigator and therefore, in the present study, the verbal test of creative thinking was used. The selection of this test was also done for the following reasons :

1. It is standardized of U.P. and Punjab. It can be used for both sexes.
2. It has high reliability and validity as has been shown in the table 3.2, 3.3.
3. This test is easily available at a reasonable rate and has been widely used by the researchers for the last ten years in Hindi speaking areas.

4. This test can be administered easily. It consumes lesser time than the other available tests.
5. Its scoring is comparatively easy, because the author has described the method in a scoring guide.
6. This test measures the three main factors of creativity namely - fluency, flexibility and originality.

#### Administration of the Test :

To administer the test, the researcher personally went to different schools. The actual administration was proceeded with a shorttalk to the Principals each school with a view to explain the purpose of the test and to take their cooperation. The test was administered during the normal class period with the help of the class teacher. A proper rapport was established with the students of eliminate their fear and they were assured that their scores would be kept under strict confidence.

Very first, the researcher asked the students about purpose and short description of the test briefly. The researcher distributed the test booklets with the front page upper most and at the same time. She warned the students not to fill in such particulars one by one as are required on the title page of the booklets.

When the students have filled in all the entries of the title page, the researcher read clearly and loudly

the instructions given at the bottom of the title page of the test.

After reading the instructions, the researcher, requested the subjects to go ahead with the three tasks in the activity. They were instructed not to consult or copy others. At the end of the every five minutes, the researcher announced the time so as to enable the students to go to the next item.

At the end of the 12 minutes, meant for activity first, the investigator asked the subjects to open 2nd page for the second activity. The researcher read the instructions for second activity and announced the time for second activity as 15 minutes. When the time was over the researcher asked the students to put down their pens and open the page for third activity. The same procedure was followed for activities third and fourth.

#### **Scoring of the Test :**

Each response was scored for fluency, flexibility and originality. These terms have been defined as follows :-

##### **1. Fluency :**

Fluency is represented by the number of relevant and unrepeated ideas which the testee produced. Relevance was judged on the basis of the appropriateness of the responses in relation to the test problem. An unrepeated ideas which had been expressed only once under a given problem.

## 2. Flexibility :

Flexibility is represented by a persons ability to produce ideas which differ in approach or thought trend. All ideas which fall under one category of approach or thought trend are treated as one for purposes of flexibility scoring. Thus, if five ideas were produced and all belonged to only one category of approach or thought trend, the score of flexibility was one, but in case all the five ideas were based on five different approaches or thought trends, the flexibility score was five. There could be intermediate scores for flexibility depending on the number of categories of thought or trends to which the responses belong.

## 3. Originality :

Originality is represented by uncommonness of a given response. Responses given by less than 5% of the group were treated as original.

The total fluency, flexibility and originality scores for all iteams of the four sub-tests, separately were converted into standard scores, 't' and then added up to get the composite activity scores. It was necessary because the standard deviations of three scores sometimes markedly vary and if raw scores were added up, the ranking would have greatly affected.

## Scoring for Fluency :

While doing the scoring for fluency, the investigator went through the responses to each item

carefully and struck off those which were irrelevant and/or had been repeated. Thereafter, the researcher counted the remaining number of responses and entered that number as the fluency score for the item in the appropriate box in scoring sheet.

#### Scoring for Flexibility :

At the time of scoring flexibility, the researcher first acquainted herself with the categories of responses given for each item in the scoring guide. With the help of manual, she noted in bracket against each response, the alphabet serial of the category to which it belonged. Whenever, the researcher came across a response which had not been mentioned in the scoring guide, she noted it on a separate paper. These responses were then categorized into new categories not considered in the scoring guide.

After their categorization, those responses were given new alphabet or serial according to the new categories, to which a particular response belonged the total flexibility score of each individual was the total number of different alphabet serial used.

The additional categories developed by the researcher for scoring flexibility are mentioned below-

#### ACTIVITY I :

- |          |                                  |
|----------|----------------------------------|
| ITEAM I  | I More Crimes                    |
| ITEAM II | I Problem of play ground.        |
|          | II Helpful in rural development. |

- ITEAM III
- I Change in crop pattern.
  - II Population problem will become meaning less.
  - III Less financial problems
  - IV No problem of sewage disposal.

**ACTIVITY II :**

- ITEAM I
- I Use as quartz crystal in Watch and Electronics instrument
  - II Use as Jewells -- in watch industry in ornaments.
  - III Use for making micro abrasives and sand paper.
- ITEAM II
- I Use as non conductor of electricity, for erection of tents and mosquito nets.
- ITEAM III
- I As coolant in engine.
  - II use in coolers.
  - III Scientific uses - culture medium preparation as solvent.
  - IV Worshipping - Surya Namaskar  
- Abhisheka of Lord Shiva.

**ACTIVITY III :**

- ITEAM I
- I Symbol of success.
  - II Useful for thieves.
- ITEAM II
- I Both expand in volume of freezing.



II High potential source of energy.

III Both can be mixed with each other.

IV Both change their state with change in  
Normal Temperature and Pressure.

#### Scoring for Originality :

Scoring for originality was done on the basis of statistical uncommonness of responses. The principle behind this was that the more uncommon the responses, the higher the originality weight was assigned. If a response was given by 1% of the subjects, the responses got an originality weight of 5 ; if a response was given by 2% of the subjects, it got an originality weight of 3; if got an originality weight of 4%, if the response was given by 2, and if the response was given upto 5% of the subjects it got an originality weight of 1 and responses given by more than 5% of the subjects, they got an originality weight of zero.

The scoring of creativity test was done by the following of the above said procedure. After scoring the answer sheet for fluency, flexibility and originality of every individual, 'mean' and 'standard deviations' were calculated for each dimension of creativity to convert raw scores. Conversion of raw scores into standard scores was considered necessary because the standard deviations of the scores of the three dimensions markedly varied and if raw scores were added up then the ranking would have greatly affected.

Standard scores were then expressed in a new distribution with a mean of 50 and standard deviation of 10 so as to make all the scores positive which are relatively easy to handle. Scores, thus obtained for fluency, flexibility and originality were summed - up to give a composite score on creativity for each subject.

## II. Tool No. 2

### Adjustment Inventory (AISS)

The Adjustment Inventory for School Students (AISS) Hindi Version constructed and standardised by Dr. A.K.P. Singh and Dr. R.P. Singh, was used as a tool for measuring the extent of adjustment of the High Creative and Low Creative students. This inventory has been designed for use with Hindi knowing students in India. The inventory seeks to segregate well adjusted secondary school students (age group 14 to 18 years) from poorly adjusted students in three areas of adjustment : Emotional Social and Educational In this way this inventory has 60 items with 20 items or questions in each area of adjustment. The use of Devnagri letters A B C in the inventory was done corresponding to Emotional social adjustment adjustment\_ | and Educational adjustment respectively. The items or questions are to be answered in 'Yes' or 'No'.

#### (a) Reliability of the Inventory :

As reported in the manual of the inventory, the coefficient of reliability was determined by (i)

Split-half method, (ii) Test-retest method and (iii) K-R Formula-20. Table 3.4 given below shows the reliability coefficient of the total test and of sub-tests by the different methods.

**TABLE NO. - 3.4**  
**RELIABILITY COEFFICIENT OF THE INVENTORY**

S.No.	Method Used	Emotional	Social	Educational	Total
1.	Split-half	0.94	0.93	0.96	0.95
2.	Test-retest	0.96	0.90	0.93	0.93
3.	K-R Formula 20	0.92	0.92	0.96	0.94

(b) **Validity of the Inventory** —

According to the manual of the inventory, in item analysis validity coefficients were determined for each item by biserial correlation method and only each items were retained which yielded biserial correlation with both the criteria (i) total score and (ii) area socre, significant level being .001.

Inter correlations among the three areas of the inventory were calculated. The correlation matrix is being presented in Table 3.5.

TABLE NO. - 3.5  
CORRELATION MATRIX OF THE THREE AREAS

Areas		I	II	III
I	Emotional	--	.20	.19
II.	Social	.20	--	.24
III.	Educational	.19	.24	--

Further, the inventory was also validated by correlating inventory scores with ratings by the Hostel superintendent. This was done on the data of 60 pupils in the hostel of Patna Collegiate Multipurpose Higher Secondary School. The Hostel superintendent rated the pupils on a five point scale namely Excellent, Good, Average, Poor and Very poor in respect of their adjustments. The product moment coefficient of correlation between the inventory scores and superintendent's ratings was obtained to be 0.51.

(c) Administration of the Inventory :

It is a self administering inventory. To the sampled students this inventory was administered in a Formal atmosphere of the class-room Cooperation of the students in answering the inventory is very essential and for this purpose the students were informed to be fearless in responding the inventory with an assurance that their responses would be kept

strictly confidential. The researcher also indicated frankly and honestly the purpose of the inventory, when the question regarding this was raised by the students. The investigator also read the instructions given on the front page of the inventory and the students were also allowed to read them silently along with the researcher. The students were required to response the questions of the inventory by rounding the 'Yes' or 'No' responses. There is no time limit for responding the inventory. Ordinarily an student takes 10 minutes in completing it.

(d) **Scoring of the Inventory :**

The scoring was done with the help of key provided along with the manual of the inventory. For any answer indicative of adjustment zero was given, otherwise a score of one was awarded. The total score of these three areas of adjustment indicated the general adjustment status. Emotional adjustment, Social adjustment and Educational adjustment were indicated by using Devnagri letters A,B,C respectively in the inventory. Here, the meaning of the symbols and explanation of areas are mentioned.

- A. Emotional Adjustment : High scores indicate unstable emotion. Students with low scores tend to be emotionally stable.
- B. Social Adjustment: Individuals scoring high are

submissive and retering, while individuals showing low score are of aggressive behaviour.

- c. Educational Adjustment; Individuals scoring high are poorly adjusted with their curricular and co-curricular programmes. On the other hand, low scores indicate that individual is interested in school programme.

### III. Tool No. 3 :

#### Vocational Interest Record (VIR)

To measure the vocational interests of the high creative and the low creative students Vocational Interest Record has been used which was constructed and standard by Dr. S.P. Kulshrestha. This Record was first developed in the year 1965, which was thoroughly revised in 1970, 1975 and 1977 by the author. By this time, this scale has been used in about 250 research studies. It has been consistently in use for the testing-practicum at graduate and post-graduate level of many Universities in Psychology and Education subject. Guidance workers have also found it very useful as a screening device for discovering the vocational interests of their clients. Obviously, this Record has been found suitable for delta and higher secondary students, as well as for the students of colleges and also for the young adults out of schools and colleges. Thus, the main purpose of this VIR is to measure vocational interest, to enable the students to select such

subjects in schools which are according to their preferred vocations.

Vocational Interest Record contains 200 vocations belonging to 10 different vocational areas which are as follows :-

1. Literary (L) :

The literary scale includes the jobs like Editor, Translator, Critic, Journalist, Poet, Writer, Language specialist, Dramatist, Epic writer, Language teacher, Novelist and story writer etc.

2. Scientific (Sc.) :

This contains the job like Mechanical Engineer, Chemical Engineer, Scientist, Health-Officer, Compounder, Astrologer, Atomic-Scientist, Medical representative, Botanist, Science-teacher, Veterinary Doctor, Vaccinator, Doctor, Chemist, Scientific apparatus manufacturer and Electric Engineer etc.

3. Executive (E) :

Executive area includes the jobs like Mayor of Corporation, Hospital Superintendent, President, Deputy-Collector, Probation Officer, Army Officer, Hony. Magistrate, City Magistrate, Judge, Police Superintendent, Manager, School-Inspector, Principal, Tahsildar etc.

4. Commercial (C) :

The following jobs are included in the area of commercial interests - Typist, Secretary, Shopkeeper,

Steno, Accountant, Ticket Collector, Commerce-teacher, Treasurer, Drafts-man, Income-tax-officer, Sales-man, Industry-Manager etc.

5. Constructive (Co) :

Constructive area includes the interest in vocations of Goldsmith, Iron-smith, Forman, Radio-mechanic, Dyer, Teacher of Art Crafts, Book-binder, Washerman, Welder, Carpenter, Potter and Toy-makers etc.

6. Artistic (A) :

These jobs include the assignment Singer, Music-director, musical instrument-maker, Picture-artist, Decorator, Stage-Director, Painter, Cartoonist, Photographer, Dancer and Sculpturer etc.

7. Agriculture (AG.) :

This area is concerned with the assignments of Gardner, Farmer, Animal husbander, Agricultural-Inspector, Seed Stores Officer, Soil- specialist, Manure- specialist, Tractor-driver, Agricultural researcher, Poultry-man, Agricultural-teacher, Breeder, Nursery-preparer, Horticulturist and Dairy-man etc.

8. Persuasive (P) :

Persuasive jobs are full of persuasion. They are Advertisement-manager, Member of Parliament, Member of Legislative Assembly, Beema-agent, Order-bookers, Vocational Counsellor, Political Lecturer, Ambassdor,



Advocate, Religious preecher, Tourist-guide, Sales-manager etc.

9. Social (S) :

Social jobs, which were included in the test, are : Village-level worker, Scoute and Guide, Religious-reformer, Red-cross workers catering the need of happy children, Free medicine seller, Hony. teacher, Guide and Social-worker etc.

10. House-hold (H) :

Household jobs are Cooker, Embroider, Home-science teacher, Home science researcher, Nurse, Home-manager, Expert in Cooking and Home-director etc.

In this way, this test includes 10 vocational areas. Each of these areas has 20 jobs/vocations/assignments on the record, 10 on horizontal and 10 on vertical side.

a. Reliability of VIR :

According to the manual of Vocational Interest Record, the test - retest reliability coefficient is obtained .69 with a time interval of 15 days.

b. Validity of VIR:

- i. Initially only high valid items were selected from Thurston's Interest Schedule, Strong's Vocational Interest Blank, Kuder's Preference Record.
- ii. The scores on the record were correlated with the parents', teachers' and friends' opinions about

the interest of the pupils and coefficient of validity was found .81, .83 and .85 respectively.

iii. The coefficient of validity is found .79 when this Record is validated with Labh Singh's Vocational Interest Inventory.

iv. The comparison of results was also done with the results of follow-up study of the study and the coefficient of correlation was found about .80 which is significant at .01 level of significance.

**c. Administration of VIR :**

This tool is again a self-administering record and may be administered individually as well as in group. Here, the researcher administered this record in a normal class along with other tests. First, the researcher read the instructions along with examples loudly given on the front page of VIR in Hindi and also asked the students to read them silently. The main purpose of this record was also asked to the students. The practice items (how to record responses) were stated and emphasized clearly. Although, there is no fixed time limit in responding the record, yet 7-10 minutes are taken usually.

**d. Scoring of VIR :**

Scoring of the record was done on the basis of instructions given in the manual of VIR. The maximum possible scores under each vocational interest area is

twenty and minimum is Zero. One mark for each right marked (✓) responses was assigned and then total scoring was counted out under each vocational area. For example, to know the interest in Literary (L) area; the researcher summed up the total for  $L_1$  and  $L_2$ . For  $L_1$  all the right marked (✓) responses were summed up vertically for the first figure in first column and for  $L_2$  all the right marked (✓) responses were added horizontally for second figure in first column (horizontal). Thus, both the sums for  $L_1$  (Vertically) and  $L_2$  (horizontally) provided a total score for L which indicated the interest in Literary field and recorded on the last lage of the blank. In the same way, raw scores for other vocational interest areas were counted.

#### IV. Tool No. 4 - Achievement Test :

For academic-achievement no separate test was given to the students. Here, only the percentage of the total marks of their previous class (X) have been used.

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**CHAPTER - IV : ANALYSIS AND INTERPRETATION**

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## CHAPTER - IV

### ANALYSIS AND INTERPRETATION

The present chapter deals with the comparative analysis and presentation of data with special reference to the objectives of the study. The data for the present study were collected from all Intermediate colleges of Moradabad District (one of the districts of Rohilkhand Division). The sample was selected from XI students of these colleges randomly, but the complete and final information was available from only 528 students. On the basis of creativity test, they were identified as the high creative and the low creative. The total number of the high creative students was 30 (5.68%) and that of the low creative was 117 (22.15%). Further, for convenience's sake the researcher has equated the low creative students with the high creative students on the basis of sex, faculty and the institutions they were studying in. The final sample again was classified into different sub-groups, namely, male-female and arts-science. As a matter of fact, it was done for the sake of clarity and convenience of comparison and achievement of the objectives the present study aims at.

The statistical analysis has been carried on by the researcher herself, which are as follows :

- a. Calculation of Means, S.D.'s for all the groups.

- b. Calculation of significance of difference between Means of all the groups.
- c. Calculation of Means, S.D.'s and significance of difference between Means, high creative and low creative groups were compared separately in two academic sessions i.e. 1993-94, 1994-95.
- d. Correlation among different variables for high creative and low creative groups.
- e. Analysis of variance to verify CR values.

**INTRA - GROUP COMPARISON :**

(Comparison of high creative & low creative on different variables)

In order to achieve the objectives of the study and to test the hypotheses, an attempt had been made to compare the high creative and low creative students on different variables, namely, adjustment, vocational interests and academic-achievement. The Critical Ratio (t-ratio) tests were applied with a view to testing the mean difference between the high creative and low creative in the cases of four groups as male - female, arts - science.

**VARIABLE NO. 1 : ADJUSTMENT**

TABLE NO. - 4.1

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE AND  
LOW CREATIVE STUDENTS ON EMOTIONAL ADJUSTMENT

Group	N	M	S.D.	t-ratio	Level of Significance
<b>MALE</b>					
High Creative	19	2.04	1.38	.50	N.S.
Low Creative	19	2.40	2.84		
<b>FEMALE</b>					
High Creative	11	1.78	1.54	.41	N.S.
Low Creative	11	1.45	2.25		
<b>ARTS</b>					
High Creative	7	1.71	1.53	1.02	N.S.
Low creative	10	2.70	2.42		
<b>SCIENCE</b>					
High Creative	23	1.87	1.47	.01	N.S.
Low Creative	20	1.80	2.32		

Means, S.D.'s and t-ratios of the high creative and the low creative students for emotional adjustment have been given in Table No. 4.1. In all the cases the means were not significant. Both the groups were almost equal and 'excellent', so far as their emotional adjustment was concerned.



TABLE NO. - 4.2

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE AND  
LOW CREATIVE STUDENTS ON SOCIAL ADJUSTMENT

Group	N	M	S.D.	t-ratio	Level of Significance
<b>MALE</b>					
High creative	19	4.93	3.13	.12	N.S.
Low creative	19	5.02	1.52		
<b>FEMALE</b>					
High creative	11	7.86	3.05	2.14	S. at .05
Low creative	11	5.41	2.46		
<b>ARTS</b>					
High creative	7	5.36	1.76	.32	N.S.
Low creative	10	5.70	2.56		
<b>SCIENCE</b>					
High creative	23	5.98	3.48	1.30	N.S.
Low creative	20	4.80	1.85		

The Table No. 4.2 shows the significance of difference between means of the high creative and low creative on social adjustment. Here, only one t-ratio (2.14) in case of the female students was significant at .05 level. The mean value was in favour of the high creative female. It means that the high creative females tended to move slightly towards dissatisfaction at social level. The remaining three groups had no significant differences.

TABLE NO. - 4.3

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE AND  
LOW CREATIVE STUDENTS ON EDUCATIONAL ADJUSTMENT

Group	N	M	S.D.	t-ratio	Level of Significance
MALE					
High creative	19	2.82	2.07	.42	N.S.
Low creative	19	3.14	2.25		
FEMALE					
High Creative	11	2.53	2.16	.87	N.S.
Low creative	11	1.78	1.98		
ARTS					
High creative	7	1.45	1.37	1.47	N.S.
Low creative	10	2.50	2.00		
SCIENCE					
High creative	23	2.90	2.04	.28	N.S.
Low creative	20	2.70	2.38		

In Table No. 4.3 data reveal that the high creative and the low creative groups did not differ significantly with regard to their educational adjustment, as none of the t-ratios was significant. It means that both the groups showed 'good' and 'excellent' adjustment, because the mean values of different groups were very low. Both the groups were aware of their educational programmes and activities.

# MEANS OF HIGH AND LOW CREATIVE STUDENTS TOTAL IN ADJUSTMENT

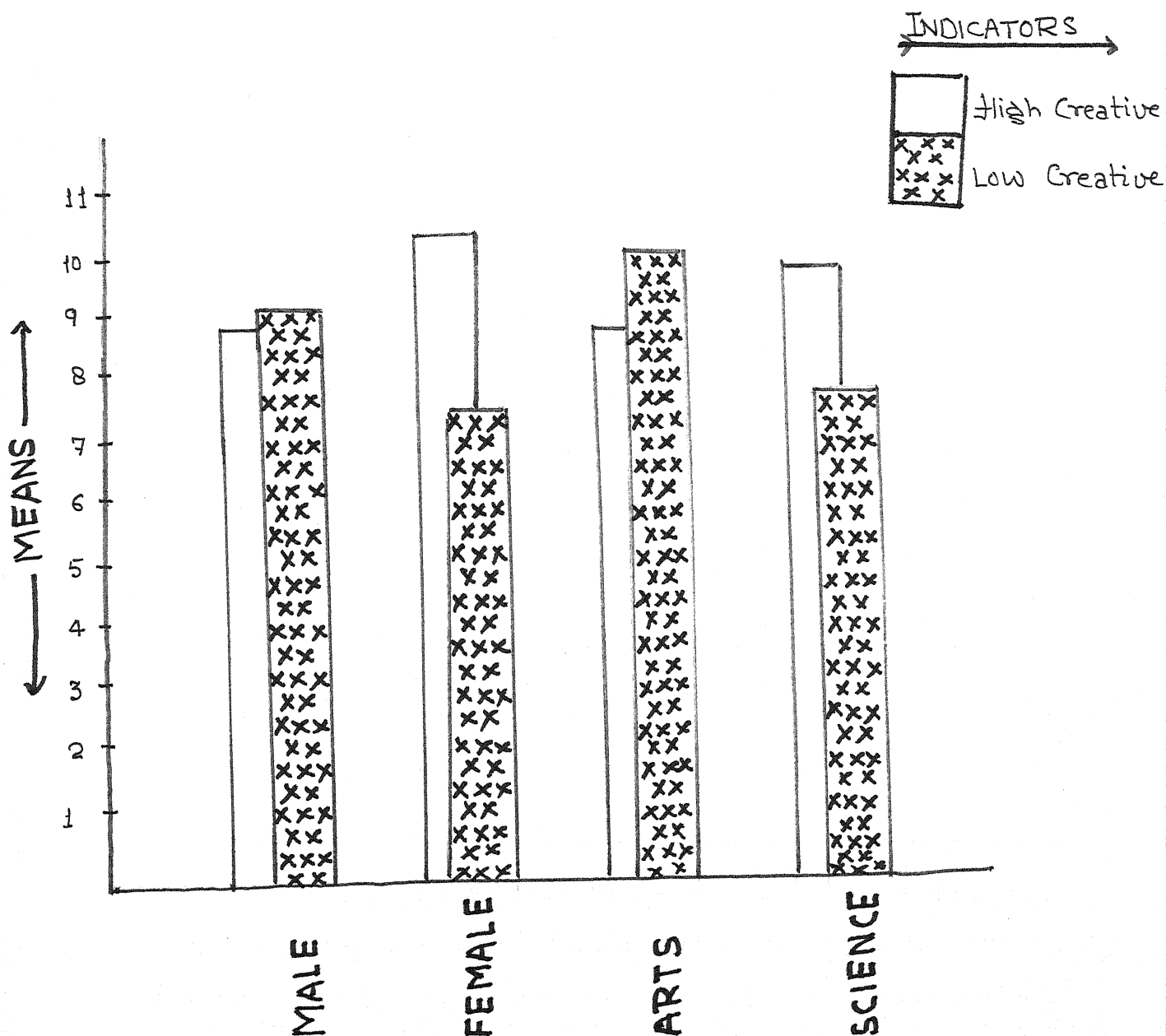


TABLE NO. - 4.4SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
AND LOW CREATIVE STUDENTS ON TOTAL ADJUSTMENT

Group	N	M	S.D.	t-ratio	Level of Significance
<b>MALE</b>					
High creative	19	8.93	5.74	.14	N.S.
Low creative	19	9.19	5.34		
<b>FEMALE</b>					
High creative	11	10.50	5.95	1.31	N.S.
Low creative	11	7.69	4.06		
<b>ARTS</b>					
High creative	7	8.78	2.18	1.05	N.S.
Low creative	10	10.50	4.02		
<b>SCIENCE</b>					
High creative	23	10.08	6.35	1.31	N.S.
Low creative	20	7.75	4.46		

From the perusal Table No. 4.4, it is clear that in all the cases - male, female, arts and science t-ratios were not significant at any level. It clearly indicated that the high creative and the low creative did not differ with regard to their whole-some adjustment. Both the groups showed 'good' adjustment, having no problems of adjustment.

### DISCUSSION :

For emotional adjustment, the high creative and the low creative males did not differ significantly. This is also true in the case of female, arts and science groups where no genuine difference between the high creative and low creative was discernible. Both the groups high creative and low creative have show 'excellent' emotional adjustment. Our findings agreed with those of Terman<sup>1</sup> (1925) in the sense that the gifted emotional stability and it disagreed with those of Gallahar<sup>2</sup> (1960) and Suri<sup>3</sup> (1973) in that the high creative showed better adjustment than the low creative group.

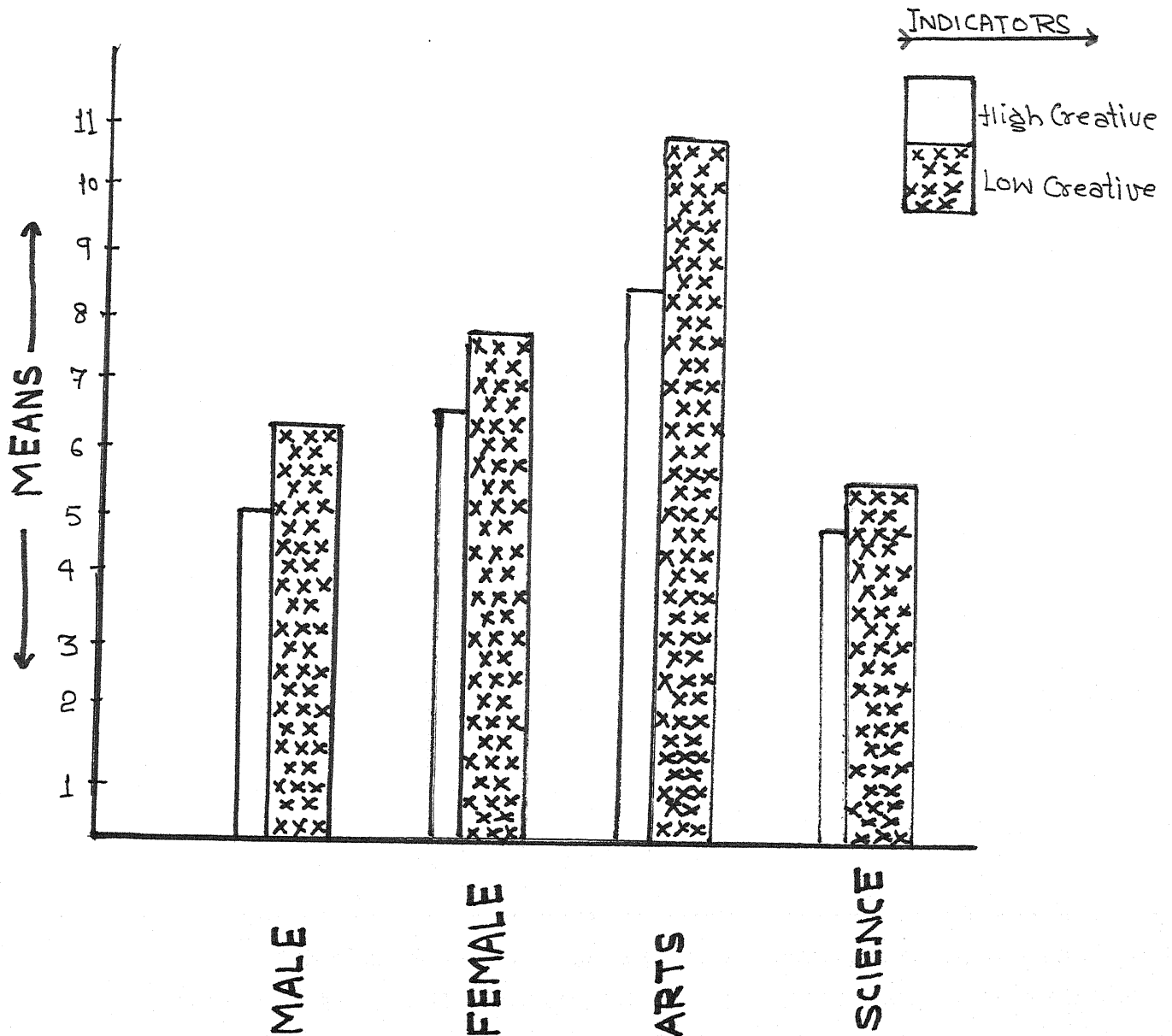
The results on social adjustment have revealed no significant difference between the high creative and the low creative males, the arts and the science groups. Only the female group showed significant difference between the high creative and low creative. This group has, however, presented a some what different picture.

The high creative girls were not better than the low creative ones so far as their social aspect is concerned because Indian society though now more advanced, does not accept the creative females as it does the creative males since from its view point of the roles expected of and played by these groups. Consequently, not much attention is paid to their intellectual needs. Thus, the high creative females tend to be more and more self-rejecting on the social side. The researcher has agreed with the views of Louttit<sup>4</sup> (1957) that on the social adjustment a high creative child is affected, like other children by the adverse conditions, but because of his unique position on creativity, he has some problems which are peculiar to himself. If he is accepted as a high creative child, adjustment is easier, as in case of boys, but if he is not accepted, he feels more rejected which is most likely to occur here in the case of the high creative females as reported in the Table No. 4.2. These results were not in agreement with those of Terman<sup>5</sup> (1925). The reason may be assigned to the difference in the nature of group formation.

On educational adjustment none of the groups had significant difference between the means of the high creative and the low creative students. Both the groups showed good educational adjustment. So far as the whole

some adjustment is concerned, the high creative and the low creative did not differ significantly. Though, in the cases of the females and science groups the mean values were higher showing that both the groups (the female high creative and the science high creative) were no better in adjustment than their corresponding counterparts.

# MEANS OF HIGH AND LOW CREATIVE STUDENTS IN LITERARY VOCATIONAL INTEREST



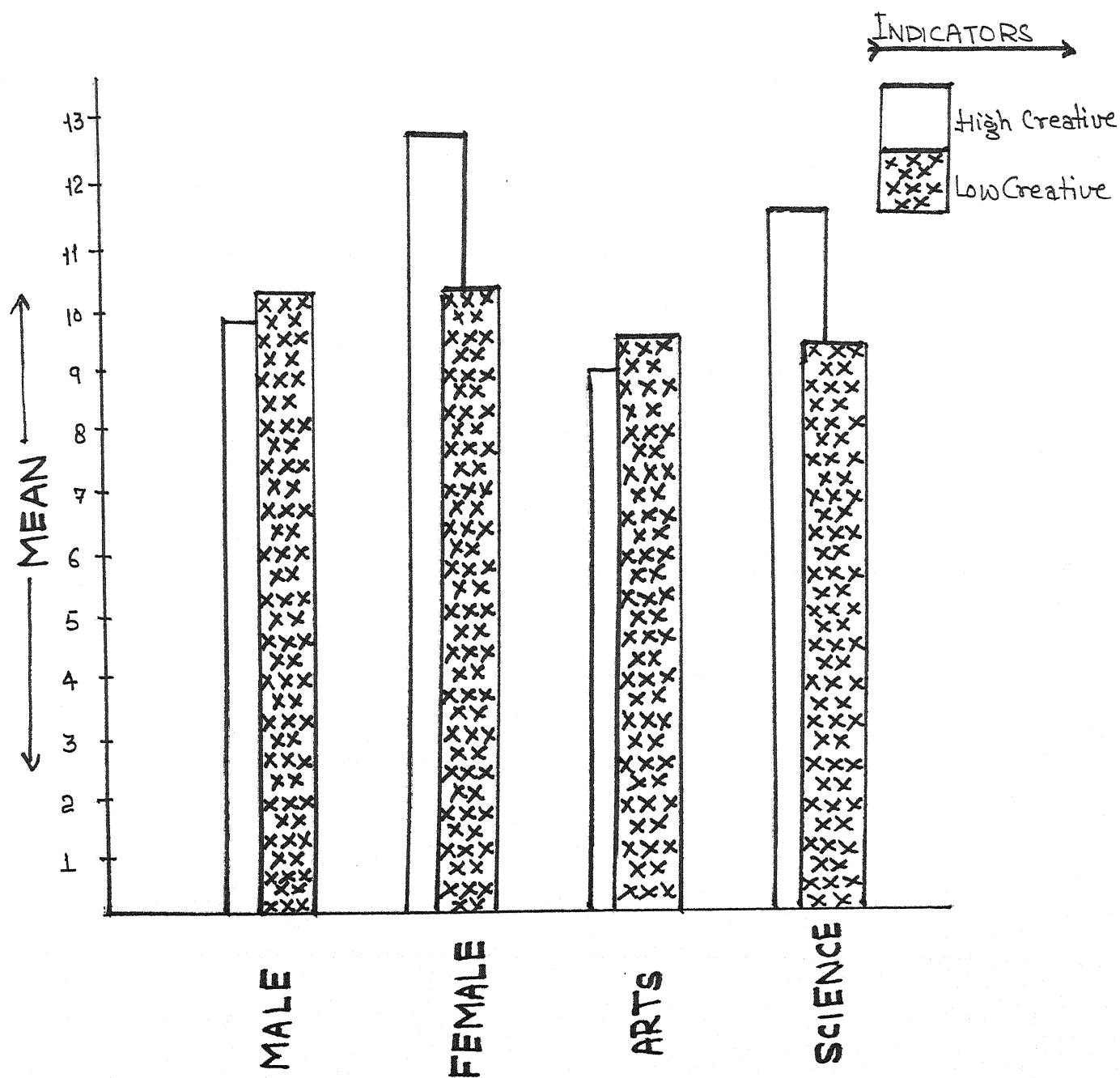


B. VARIABLE NO. 2 - VOCATIONAL INTERESTSTABLE NO. - 4.5SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
AND LOW CREATIVE STUDENTS ON LITERARY VOCATIONAL INTEREST

Group	N	M	S.D.	t-ratio	Level of Significance
<b>MALE</b>					
High creative	19	5.34	5.12	.77	N.S.
Low creative	19	6.61	5.25		
<b>FEMALE</b>					
High creative	11	6.78	3.33	.58	N.S.
Low creative	11	7.78	4.76		
<b>ARTS</b>					
High creative	7	8.73	4.40	1.90	N.S.
Low creative	10	10.80	3.60		
<b>SCIENCE</b>					
High creative	23	4.94	4.44	.37	N.S.
Low creative	20	5.45	4.07		

Table No. 4.5 shows the Means, S.D.'s and t-ratios computed for the scores of the high creative and the low creative of all the four groups in literary vocational interest. None of the mean values was significant in case of the high creative and the low creative students. Higher mean values in this vocational area in all the four groups were in favour of the low creative students. This is clearly indicated that the low creative group in comparison

# MEANS OF HIGH AND LOW CREATIVE STUDENTS IN SCIENTIFIC VOCATIONAL INTEREST



with the high creative one gave preference to this vocation. Even in the case of the arts faculty group, the low creative students have shown their preference over literary subjects.

TABLE NO. - 4.6

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE AND  
LOW CREATIVE STUDENTS ON SCIENTIFIC VOCATIONAL INTEREST

Group	N	M	S.D.	t-ratio	Level of Significance
<b>MALE</b>					
High creative	19	9.66	3.57	.34	N.S.
Low creative	19	10.14	4.02		
<b>FEMALE</b>					
High creative	11	12.80	3.74	1.96	S. at .05
Low creative	11	10.13	2.96		
<b>ARTS</b>					
High creative	7	8.78	1.91	.36	N.S.
Low creative	10	9.40	4.40		
<b>SCIENCE</b>					
High creative	23	11.55	3.91	1.05	N.S.
Low creative	20	10.35	3.21		

In Table No. 4.6 significance of difference between the high creative and the low creative regarding scientific vocational interest is revealed. In this table out of four group only one t-ratio in the case of female group was significant at .05 level of confidence. The mean value (12.80) of the high creative female was higher than that (10.13) of the low creative female. This clearly has shown that the high creative females liked this job more than the low creative ones, since this vocation involved their intellectual faculty as well as their individual skill. While, in other three groups - male, arts and science - the high creative and low creative to some extent showed equal mean values in this vocation, but they can not be distinguished in this area.

# MEANS OF HIGH AND LOW CREATIVE STUDENTS IN EXECUTIVE VOCATIONAL INTEREST

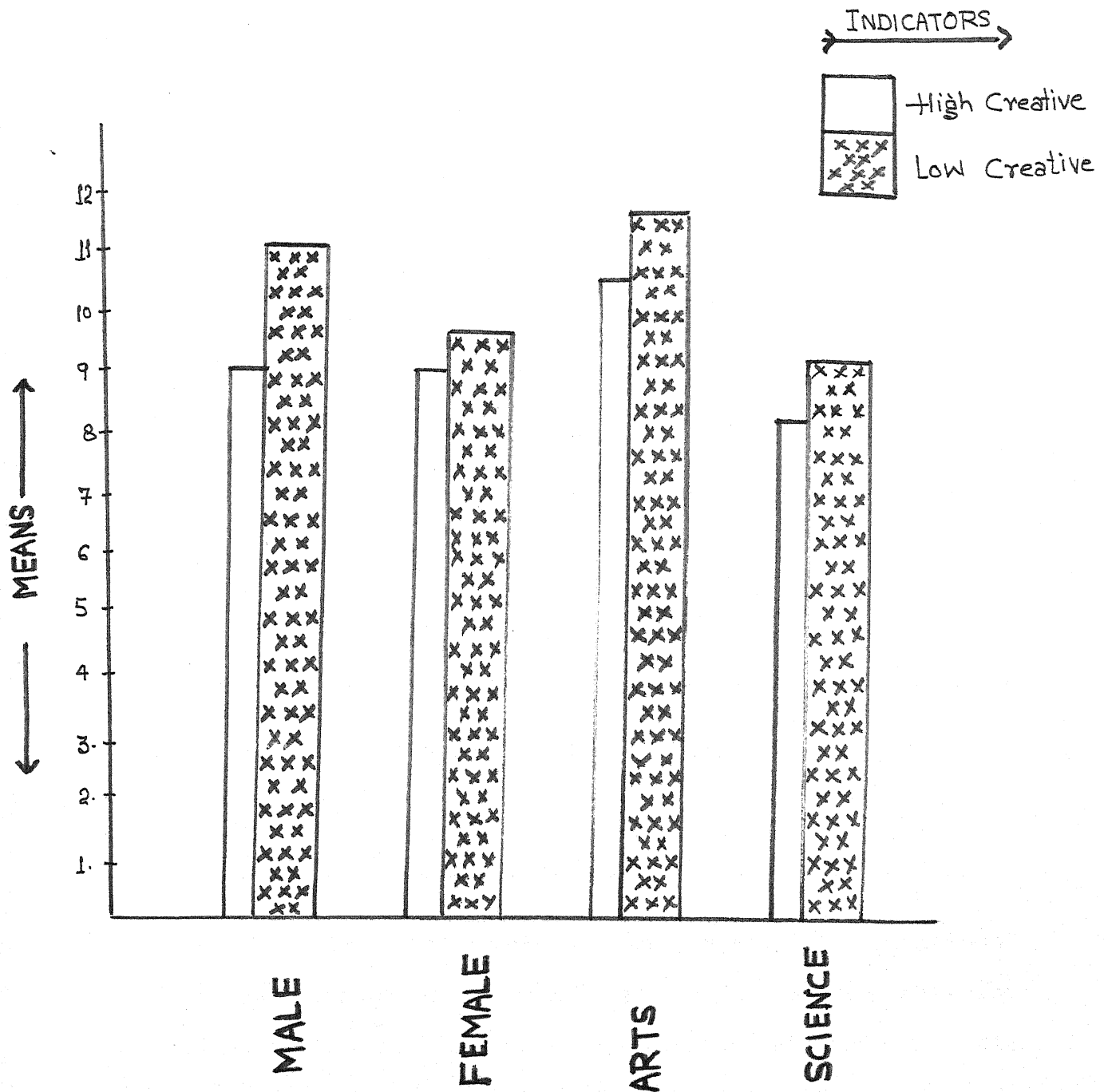
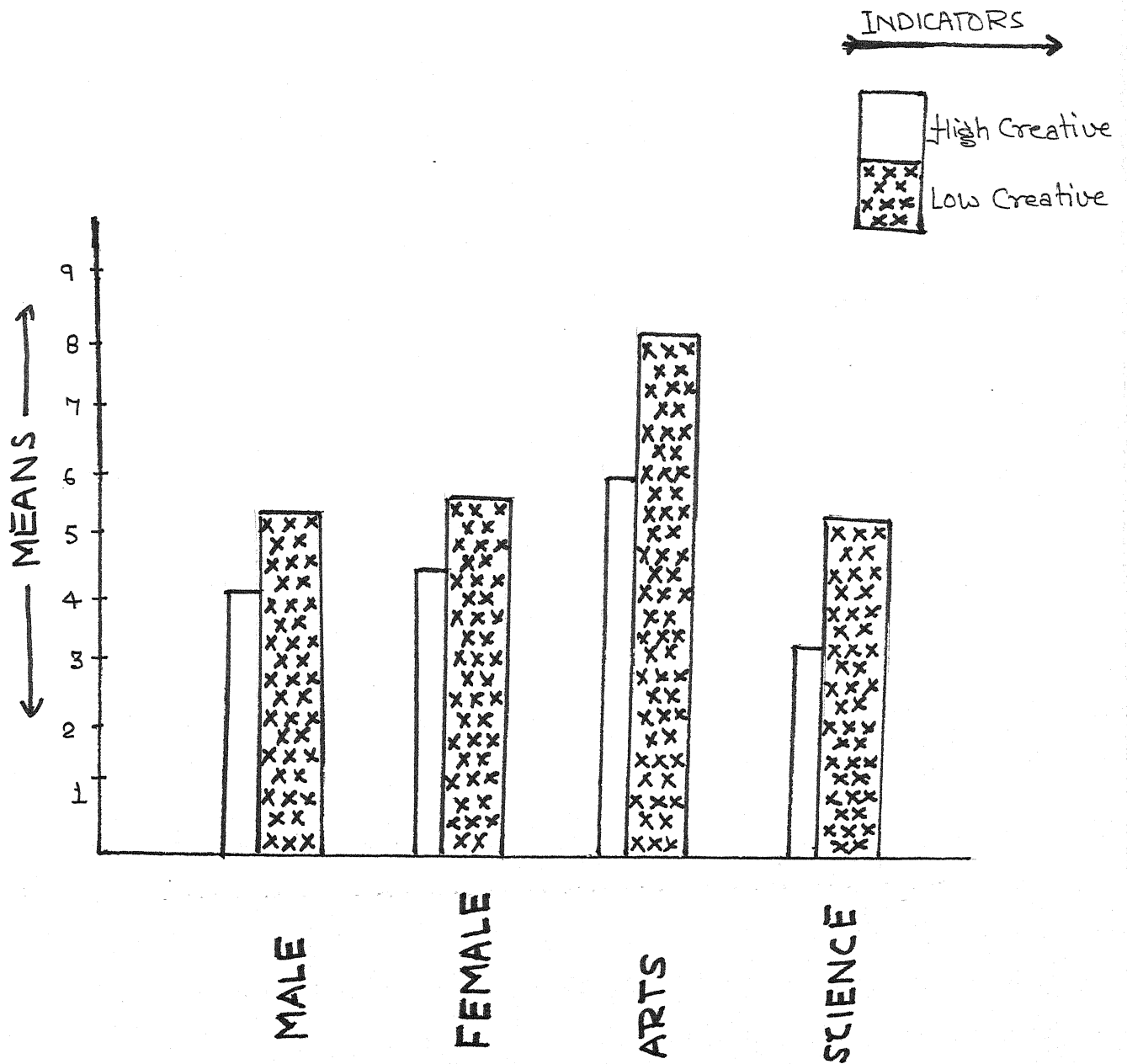


TABLE NO. - 4.7SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE AND  
LOW CREATIVE STUDENTS ON EXECUTIVE VOCATIONAL INTEREST

Group	N	M	S.D.	t-ratio	Level of Significance
<b>Male</b>					
High creative	19	9.34	5.59	1.18	N.S.
Low creative	19	11.34	4.95		
<b>FEMALE</b>					
High creative	11	9.23	3.71	.32	N.S.
Low creative	11	9.77	4.32		
<b>ARTS</b>					
High creative	7	10.78	4.41	.52	N.S.
Low creative	10	11.90	4.54		
<b>SCIENCE</b>					
High creative	23	8.55	5.26	.45	N.S.
Low creative	20	9.30	5.31		

The 't' values for executive vocational interest are given in Table No. 4.7. All the t-ratios (1.18, .32, .52 and .45) were not significant, all groups presented a rather different picture. High creative and low creative groups could not be distinguished in relation to their executive vocational interests. However, the mean values of the low creative

# MEANS OF HIGH AND LOW CREATIVE STUDENTS IN COMMERCIAL VOCATIONAL INTEREST



in all cases were higher than those of the High creative, the difference between the mean values of both the groups was very small.

TABLE NO. 4.8

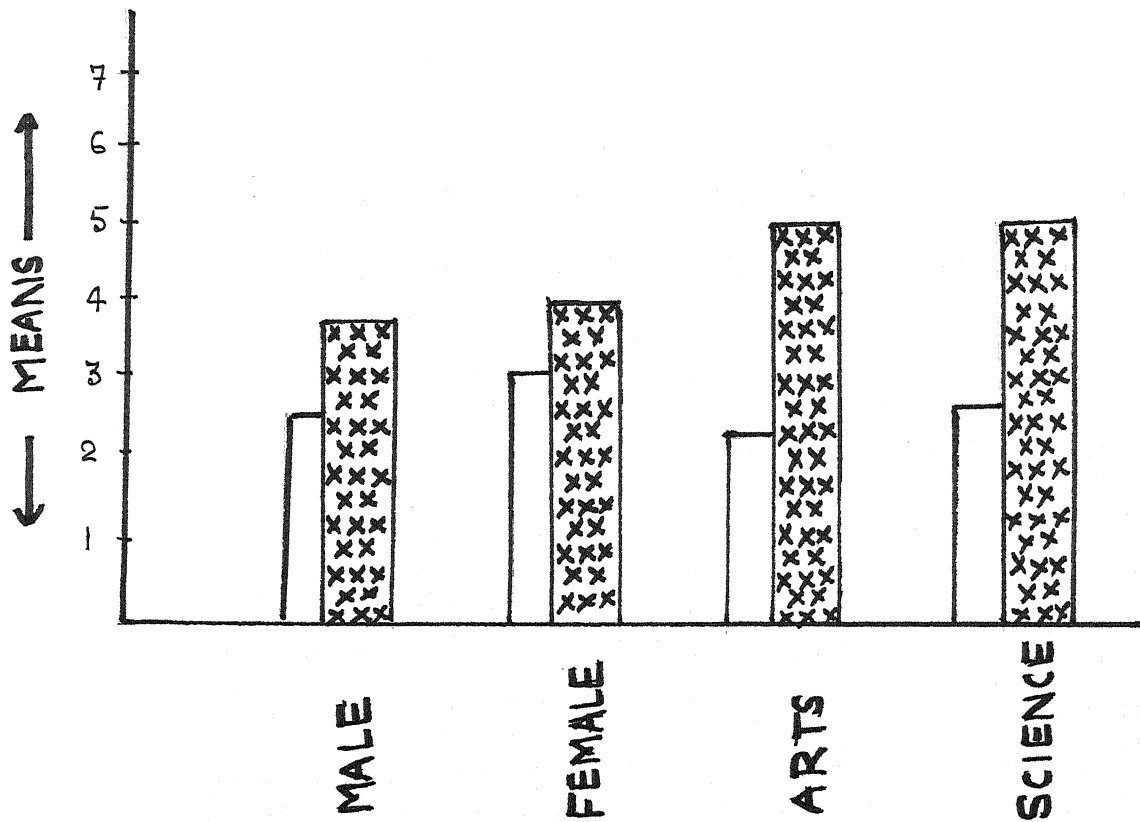
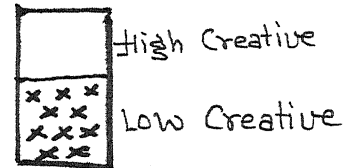
SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
AND LOW CREATIVE STUDENTS ON COMMERCIAL VOCATIONAL  
INTEREST

Group	N	M	S.D.	t-ratio	Level of Significance
<u>MALE</u>					
High creative	19	4.45	5.51		
				.58	N.S.
Low creative	19	5.50	5.61		
<u>FEMALE</u>					
High creative	11	4.41	3.60		
				1.20	N.S.
Low creative	11	5.96	2.49		
<u>ARTS</u>					
High creative	7	6.21	5.62		
				.86	N.S.
Low creative	10	8.30	4.66		
<u>SCIENCE</u>					
High creative	23	3.37	3.12		
				1.52	N.S.
Low creative	20	5.30	4.60		



# MEANS OF HIGH AND LOW CREATIVE STUDENTS IN CONSTRUCTIVE VOCATIONAL INTEREST

INDICATORS →



In Table No. 4.8 so far as commercial vocational interest is concerned it was indicated that the none of the four groups of high creative and the low creative students and significant difference. However, the mean values of the low creative students in this vocational field were higher than those of the high creative students. This was true and clear that low creative group preferred commerce job in comparison with the high creative group. The high creative arts group and the low creative have scored more in this interest than rest of the three groups.

**TABLE NO. 4.9**

**SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
AND LOW CREATIVE STUDENTS ON CONSTRUCTIVE VOCATIONAL  
INTEREST**

Group	N	M	S.D.	t-ratio	Level of Significance
<b><u>MALE</u></b>					
High creative	19	2.71	3.35		
					.89 N.S.
Low creative	19	3.87	4.72		
<b><u>FEMALE :</u></b>					
High creative	11	3.41	1.97		
					.92 N.S.
Low creaive	11	4.32	2.62		

1	2	3	4	5	6
<u>ARTS</u>					
High creative	7	2.50	2.09		
				1.68	N.S.
Low creative	10	5.30	4.28		
<u>SCIENCE</u>					
High creative	23	2.98	2.85		
				2.18	S.at .05
Low creative	20	5.50	4.35		

Table No. 4.9 has shown that on constructive vocational interest only one t-ratio (2.18) in case of science students was significant at .05 level. The higher score on this vocation in case of the low creative science student showed that this group was interested in this vocation. While observing over all scores on this vocation in all cases, the low creative science students scored the highest numbers. It is also noticeable from this table that mean values of the low creative had an edge over the high creative showing that all cases the low creative showed more interest in constructive jobs.

# MEANS OF HIGH AND LOW CREATIVE STUDENTS IN ARTISTIC VOCATIONAL INTEREST

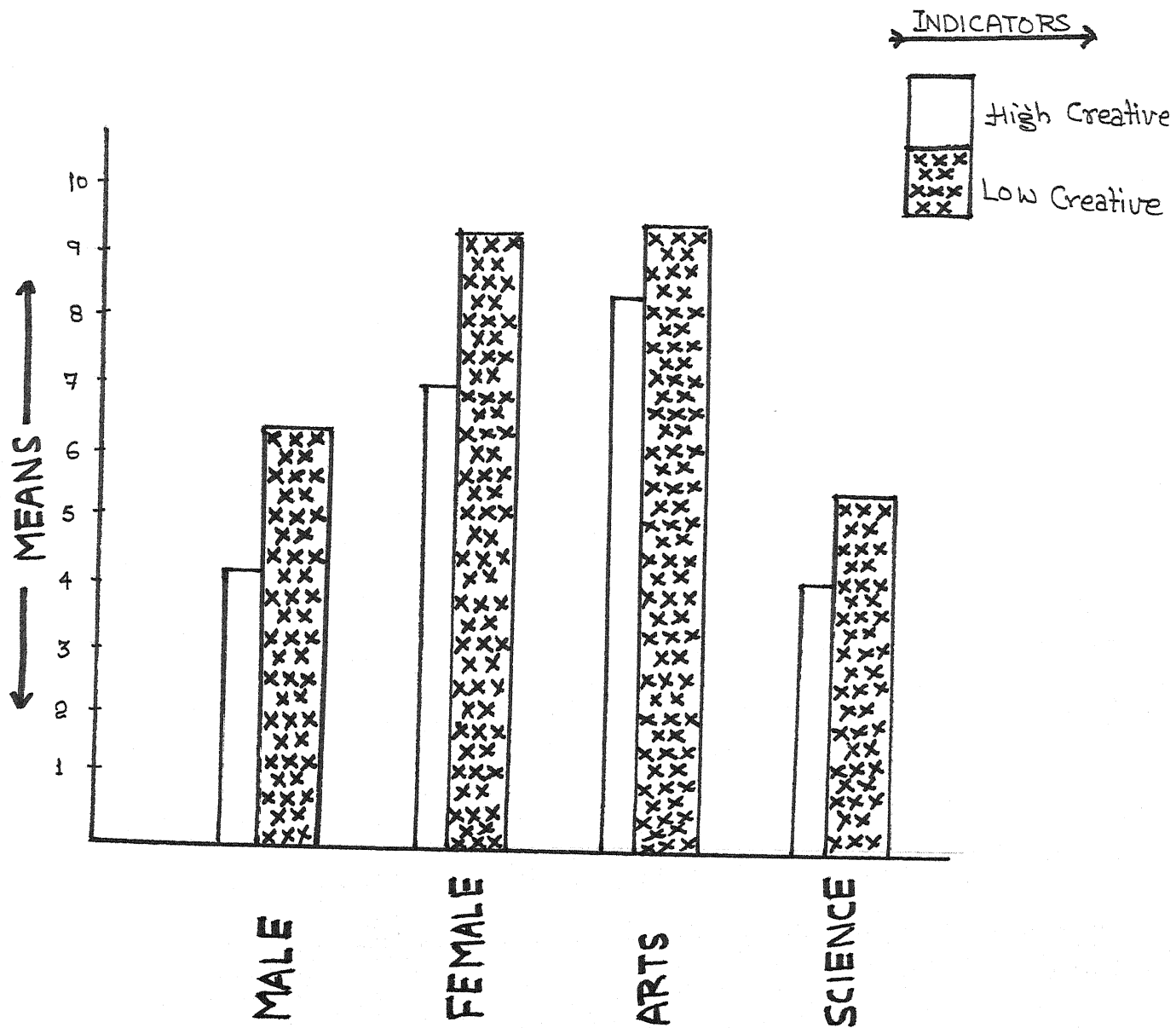


TABLE NO. 4.10

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
AND LOW CREATIVE STUDENTS ON ARTISTIC VOCATIONAL

INTEREST

Group	N	M	S.D.	t-ratio	Level of Significance
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MALE

High creative	19	4.29	3.99	1.35	N.S.
Low creative	19	6.40	5.71		

FEMALE

High creative	11	7.14	2.80	1.96	S.at.05
Low creative	11	9.54	2.10		

ARTS

High creative	7	8.65	2.49	.54	N.S.
Low creative	10	5.70	4.40		

SCIENCE

High creative	23	4.29	2.86	1.16	N.S.
Low creative	20	5.70	4.75		

# MEANS OF HIGH AND LOW CREATIVE STUDENTS IN AGRICULTURAL VOCATIONAL INTEREST

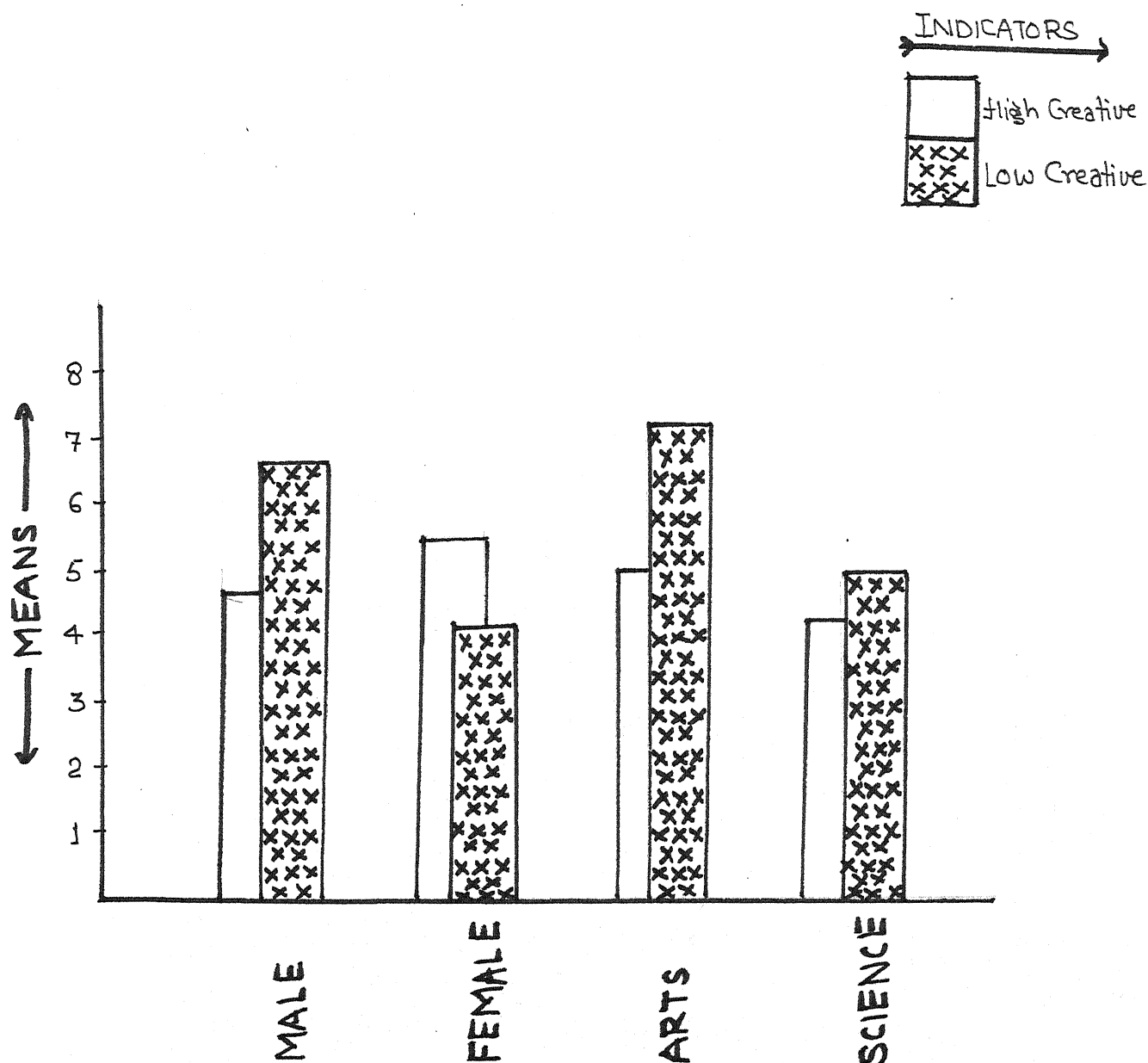


Table No. 4.10 indicates the means, S.D.'s and t-ratios of the high creative and the low creative students on artistic vocational interest. The mean values of the female high creative and the low creative showed the significance of difference at .05 level. However, the female low creative high creative scored higher than the female high creative students in relation to artistic job. Over all the low creative students as compared with the low creative students preferred this vocational area considerably. But in case of the arts group's students the mean values of the high creative and the low creative were higher than those of other groups.

TABLE NO. 4.11

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
AND LOW CREATIVE STUDENTS ON AGRICULTURAL VOCATIONAL

<u>INTEREST</u>					
Group	N	M	S.D.	t-ratio	Level of Significance
<u>MALE</u>					
High creative	19	4.72	4.29	1.32	N.S.
Low creative	19	6.61	4.69		
<u>FEMALE</u>					
High creative	11	5.59	3.23	.95	N.S.
Low creative	11	4.32	3.24		

1	2	3	4	5	6
<u>ARTS</u>					
High creative	7	5.08	3.92		
				1.15	N.S.
Low creative	10	7.50	4.73		
<u>SCIENCE</u>					
High creative	23	4.42	3.69		
				.44	N.S.
Low creative	20	5.00	4.59		

Table No. 4.11 shows the means, S.D.'s and significance of difference between the high creative and the low creative students with respect to agricultural vocational interest. None of the differences was significant at any level of confidence, showing no difference in agricultural vocational interest of the high creative and the low creative. The high creative students had less interest in this job as their mean values were smaller than those of the low creative students. Thus, it is clear that the low creative were interested in constructive works and jobs.



# MEANS OF HIGH AND LOW CREATIVE STUDENTS IN PERSUASIVE VOCATIONAL INTEREST

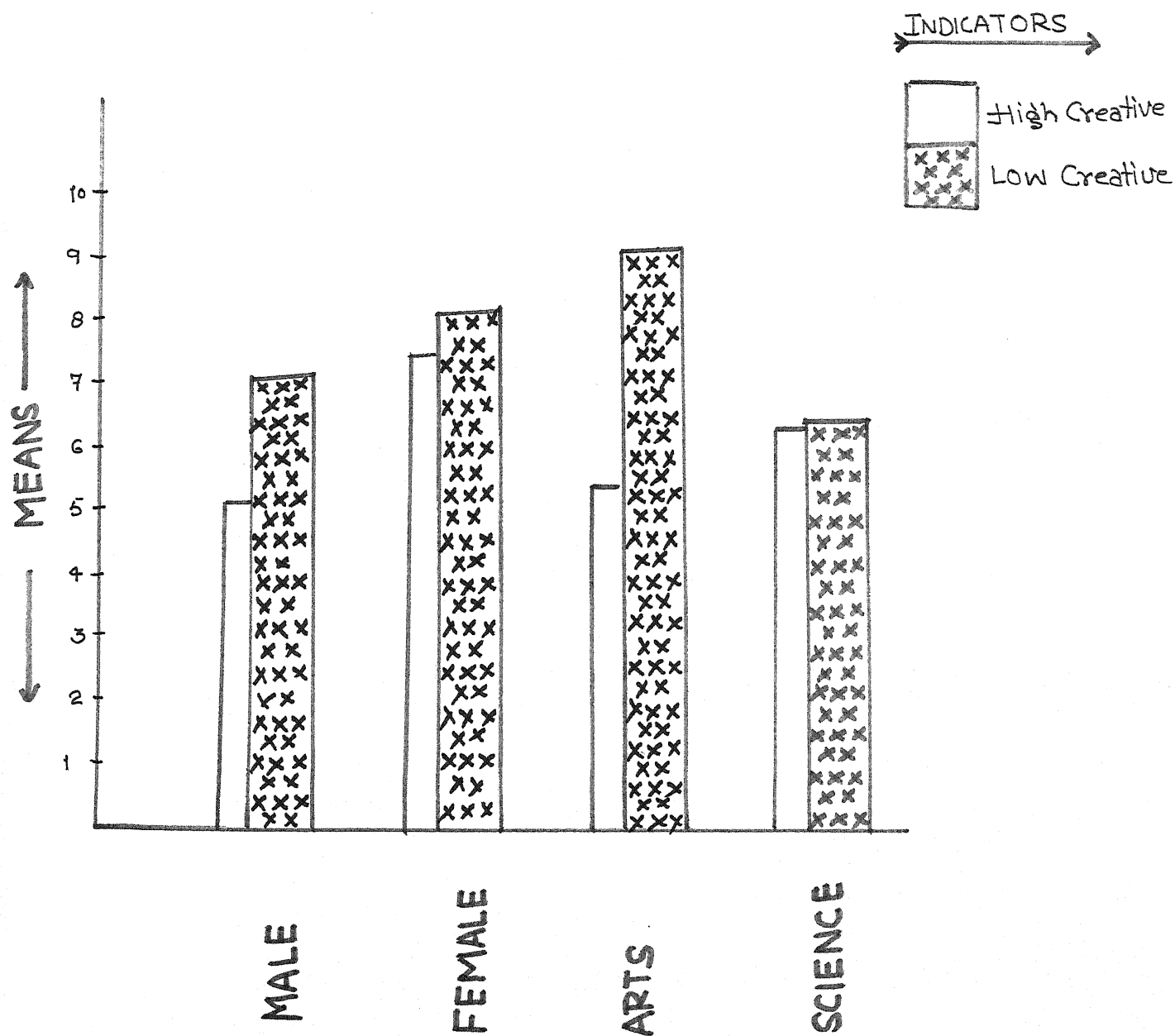
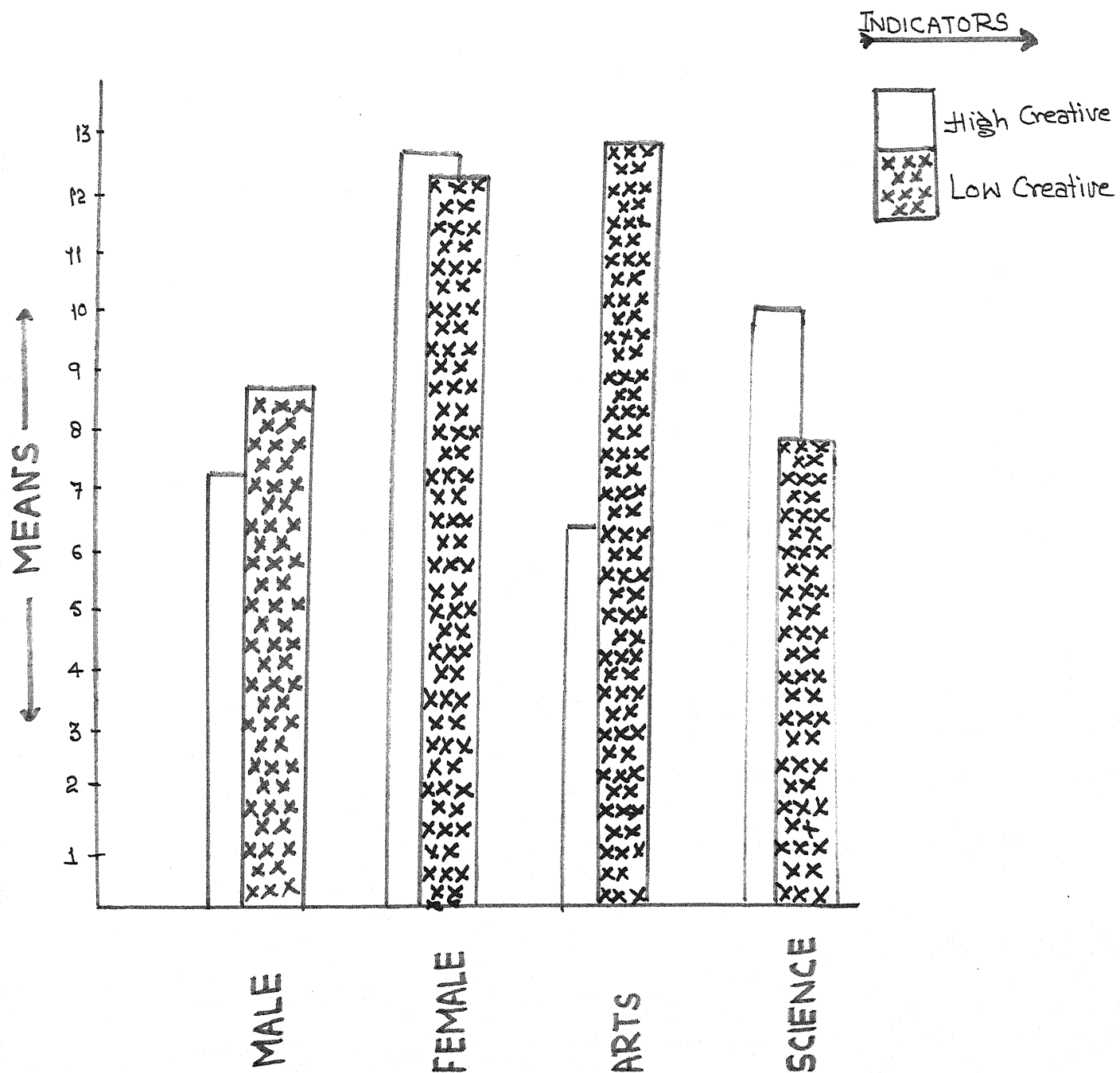


TABLE NO. 4.12

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
AND LOW CREATIVE STUDENTS ON PERSUASIVE VOCATIONAL  
INTEREST

Group	N	M	S.D.	t-ratio	Level of Significance
<u>MALE</u>					
High creative	19	5.24	4.16		
				1.68	N.S.
Low creative	19	7.24	3.48		
<u>FEMALE</u>					
High creative	11	7.59	3.44		
				.59	N.S.
Low creative	11	8.40	3.11		
<u>ARTS</u>					
High creative	7	5.65	4.30		
				1.96	S.at.05
Low creative	10	9.30	3.40		
<u>SCIENCE</u>					
High creative	23	6.37	4.09		
				.14	N.S.
Low creative	20	6.55	3.82		

# MEANS OF HIGH AND LOW CREATIVE STUDENTS IN SOCIAL VOCATIONAL INTEREST



The comparison of the high creative and the low creative with respect to their persuasive vocational interest is also carried out in Table No. 4.12. It is obvious from the present table that out of four cases only one t-ratio (1.96) of arts group was statistically significant at .05 level. This clearly showed that the high creative and the low creative students of arts group had different levels of interest in persuasive jobs. The low creative students preferred the vocation when compared with the high creative students in all the cases, as was indicated by their higher mean values regarding this job.

TABLE NO. 4.13

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
AND LOW CREATIVE STUDENTS ON SOCIAL VOCATIONAL  
INTEREST

Group	M	N	S.D.	t-ratio	Level of Significance
<u>MALE</u>					
High creative	19	7.24	6.24	.71	N.S.
Low creative	19	8.50	4.85		
<u>FEMALE</u>					
High creative	11	12.50	6.26	.16	N.S.
Low creative	11	12.13	3.91		

1	2	3	4	5	6
<u>ARTS</u>					
High creative	7	6.55	5.12		
				2.97	S.at.01
Low creative	10	12.80	3.43		
<u>SCIENCE</u>					
High creative	23	10.06	5.04		
				1.22	N.S.
Low creative	20	7.90	5.55		

Table NO. 4.13 shows that the high creative and the low creative had significance of difference in the case of arts group. The t-ratio in this case was 2.97 which was significant at.01 level. Here, again the mean value of the low creative students in this job related to persuasive area was higher than that of the high creative students. The female high creative and the low creative also preferred this job, though the difference between the means of both groups was not statistically significant.

# MEANS OF HIGH AND LOW CREATIVE STUDENTS HOUSE-HOLD <sup>IN</sup> VOCATIONAL INTEREST

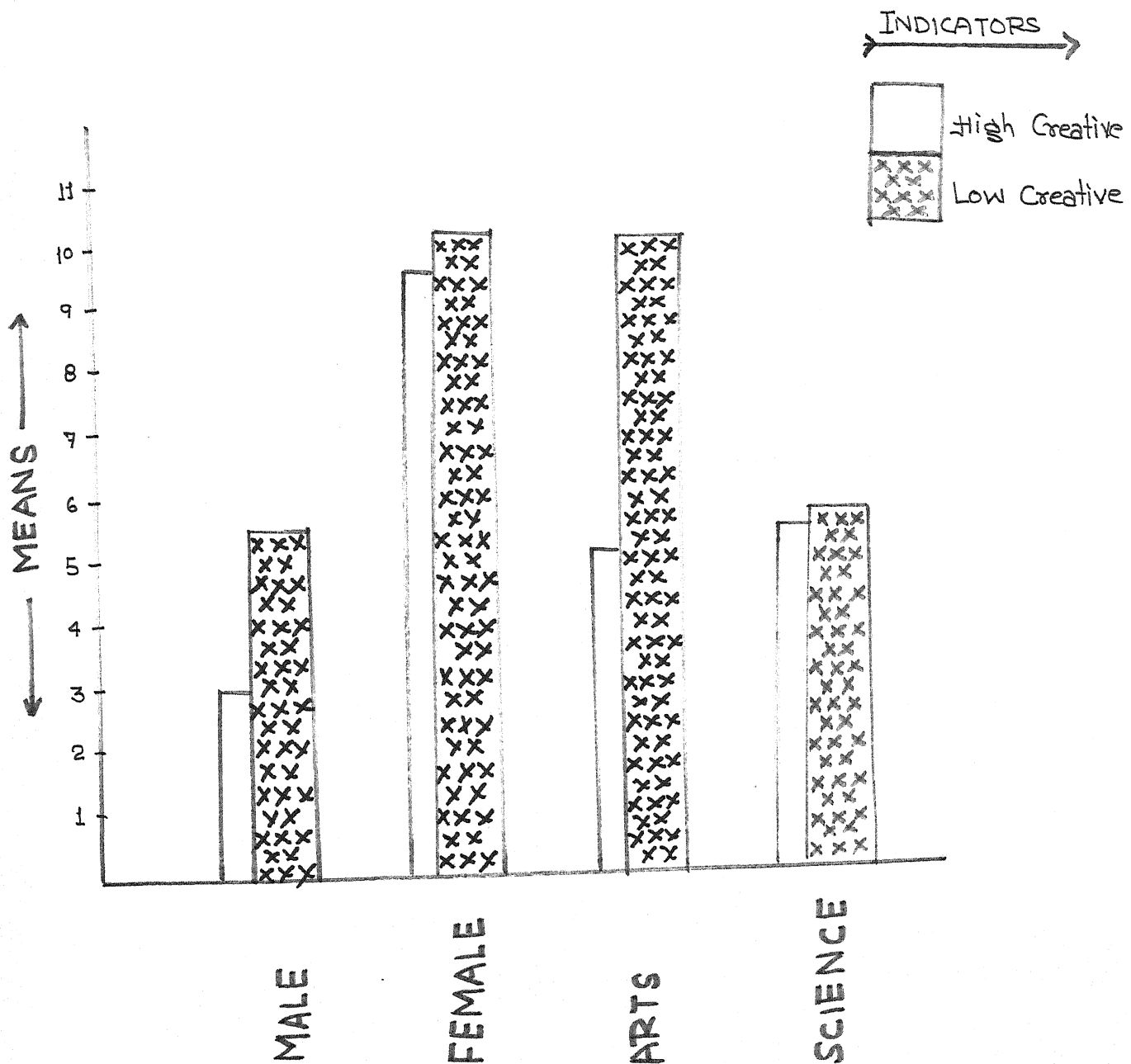


TABLE NO. 4.14

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
AND LOW CREATIVE STUDENTS ON HOUSEHOLD VOCATIONAL  
INTEREST

Group	N	M	S.D.	t-ratio	Level of Significance
<u>MALE</u>					
High creative	19	3.14	2.04		
				2.60	S.at.01
Low creative	19	5.56	4.24		
<u>FEMALE</u>					
High creative	11	9.59	5.41		
				.20	N.S.
Low creative	11	10.23	4.51		
<u>ARTS</u>					
High creative	7	5.22	3.80		
				2.44	S.at.05
Low creative	10	10.10	4.45		
<u>SCIENCE</u>					
High creative	23	5.55	5.49		
				.30	N.S.
Low creative	20	5.60	4.45		

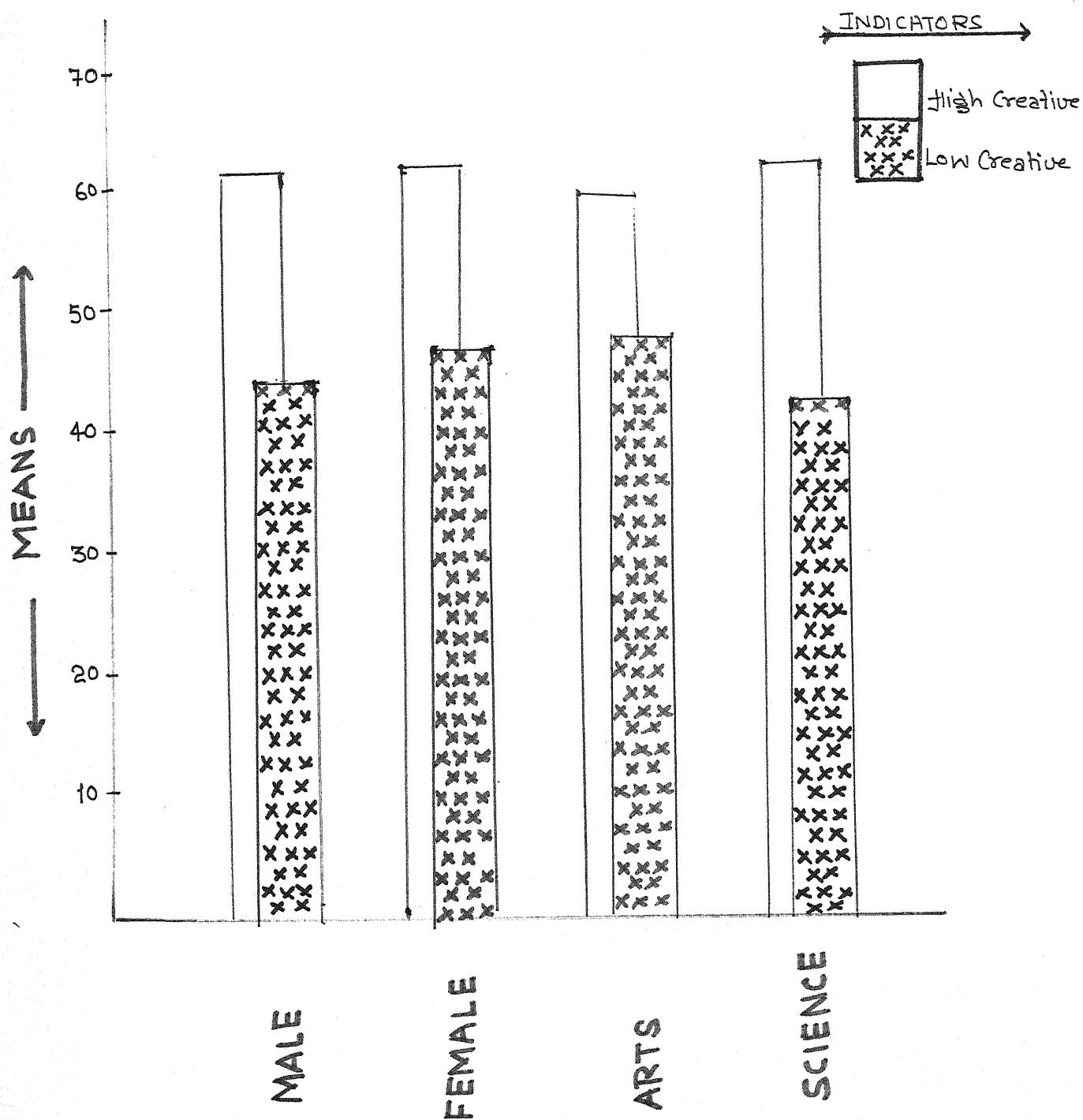
Table No. 4.14 shows that in case of household vocational interest of the high creative and the low creative, only two 't' -values , one in case of male and other in case of arts students were significant. In both the case the mean value were in favour of the low creative students. The higher score on this vocational area in all cases showed that the low creative preferred the job related to household works in comparison with their counterparts. The female group showed their higher interest in this vocational area. Their preference for these works is a natural outcome of this sex which is innately prone towards these works coupled with their high traditional way of living. Science students whether high creative or low creative did not prefer this job.

#### DISCUSSION

The high creative and the low creative did not differ significantly in their vocational interests except. The high creative students preferred scientific vocation more rather than the low creative students. On the other hand, the low creative students in comparison with their counterparts showed their preference in commercial and constructive jobs. It is not necessary that the high creative should show their preference for top most scientific and technical professions since the



# MEANS OF HIGH AND LOW CREATIVE STUDENTS ACADEMIC IN ACHIEVEMENT



creativity and vocational interests are not correlated. However, the low creative students can choose scientific, executive and technical professions. The choice of job depends on their interests rather than on their creativity. There was a great deal in common between the interests of the high creative and the low creative. In both the groups scientific, executive and social were the three highest ranking interests, though in case of the low creative social vocation occupies third place instead of second place. Similar observation was made by Mehta & Bhatnagar<sup>6</sup> (1984). No more students can be cited here either in support of or in contradiction to the results obtained in the present study, since no previous reference was available in regard to the comparison between the high creative and the low creative students.

C- VARIABLE NO. 2 - ACADEMIC-ACHIEVEMENT

TABLE NO. 4.15

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
AND LOW CREATIVE STUDENTS ON ACADEMIC-ACHIEVEMENT

Group	N	M	S.D.	t-ratio	Level of Significance
<u>MALE</u>					
High creative	19	62.55	6.45	10.39	S.at.01
Low creative	19	45.50	2.20		

1	2	3	4	5	6
<b>FEMALE</b>					
High creative	11	63.23	4.93		
				9.24	S.at.01
Low creative	11	48.23	2.45		
<b>ARTS</b>					
High creative	7	60.22	1.98		
				7.93	S.at.01
Low creative	10	48.80	3.66		
<b>SCIENCE</b>					
High creatitve	23	63.33	5.60		
				11.76	S.at.01
Low creative	20	44.60	4.24		

Table No. 4.15 points out that while comparing the low creative students, academic-achievement in all the cases that is male, female, arts and science was significant. The 't'-values were 10.39, 9.24, 7.93 and 11.76 respectively.

It indicated that there were significant differences regarding the academic-achievement. The mean values

were high in all cases of the high creative than the low creative students indicating that the high creative students had an edge over the low creative students in academic performance. The high creative males consider themselves to more creative than the low creative males does. The same findings were reported in other cases also.

### **DISCUSSION**

On the academic-achievement the high creative in all cases-male, female, arts and science-showed a significant difference from the low creative indicating an awareness on the part of the high creative of their intellectual superiority and higher academic-achievement. Obviously, the high creative students take themselves to be superior in academic performance, than the low creative students. It is not difficult to understand that because of his superior intelligence, a high creative students easily achieves academic performance at a higher level. The present study was in agreement with the studies of Bajwa & Setia (1994)<sup>7</sup> as to fact that academic performance of students with high Intelligence is significantly better than students with low Intelligence.

#### **4.2 INTER-GROUP COMPARISON**

(Comparison of high creative and low creative on different variables on the basis of sex and faculty )

Here, again an attempt had also been made to compare the high creative and the low creative students separately on the basis of sex and faculty in order to gain the objectives and to test the hypotheses. For the high creative students the Means, S.D.'s were calculated first. Further, t-ratios were calculated first. Further, t-ratios were also calculated to find out significance of difference between male - female, arts - science high creative students. The same analysis was repeated for the low creative students too.

**A. SEX-WISE COMPARISON :**

The analysis of adjustment, vocational interests and academic-achievement of the high creative and the low creative students of different sex-male and female was also carried on to find out whether the sex interact in any significant with the variables of the high creative and the low creative students.

**I. Comparison of high creative male and high creative female on different variables.**

TABLE NO. - 4.16SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
MALE AND HIGH CREATIVE FEMALE ON ADJUSTMENT

Adjustment	MALE			FEMALE			t-ratio
	N	M	S.D.	N	M	S.D.	
Emotional	19	2.08	1.38	11	1.78	1.54	.60
Social	19	4.93	3.13	11	7.86	3.05	2.64**
Educational	19	2.82	2.07	11	2.53	2.16	.44
Total	19	8.93	5.74	11	10.50	5.95	.73

Note - \*\*Difference significant at .01 level.

Table No. 4.16 shows the adjustment of the high creative male and the female students. In case of sex-wise comparison in the high creative students the t-ratio (.60) in emotional adjustment was not significant showing that the high creative did not differ on the basis of sex in this adjustment area. In case of the female high creative the mean value (1.78) was smaller than the mean value of the male high creative, showing their better emotional adjustment, although this difference was very small. The female sex showed 'excellent' adjustment on this area, while male showed 'good'.

For the social adjustment in the table high creative male and female differed in mean by 2.83 and this difference was being significant at .01 level. The lower mean value of the high creative male (4.93) than the high creative female (7.86) indicated that males were satisfied with their social traits and were more

self accepting than their corresponding counterparts. It again showed the slight dissatisfaction of female group as far as social adjustment is concerned.

Further, with regard to the educational adjustment of the high creative on the basis of sex, the table No. 4.16 shows the mean difference between the high creative male and the high creative female to be .20 which was again not statistically significant at any level. Both the groups were homogenous and seemed to be sufficient satisfied with themselves in educational programme. They showed 'excellent' and 'good' adjustment regarding this area. Similarly, while observing the wholesome adjustment of both the groups, the higher mean value (10.50) was in favour of the high creative female, showing dissatisfaction with the adjustment of the female group, though this difference was not significant. Thus, the high creative girls were more problematic than the high creative boys in their over all adjustment.

### DISCUSSION

Only on social adjustment the high creative differed from one another significantly on the basis of sex. The high creative females were not superior in social adjustment to the high creative males. They feel more frustrated and become less asserting. This is

perhaps, due to different expectations of the society form the males and females. The social environment, though objectively the same, differs for males and females, since the attitude towards and expectations from the females are quite dissimilar from those of males. A male, whatever his intellectual capability, is expected to learn, to do more academic and intellectual work and prepare himself to earn a living to support his famlily. On the other hand, a female is not expected to show prominence in the intellectual field , but is expected to behave better than a boy or a male, to help in the house-hold chores and to share more responsibilities in the household work. Though, in this age of science, technology and advancement females also share the males an earning members; they joint highly reputed and top most professions. Despite of this , in Indian homes, to some extent, males comparatively enjoy more freedom and better treatment than the females. Creative behaviour on the part of the female is generally taken lightly and sometimes even ridiculed. Moreover, since the society does not expect of a creative female an achievement at higher intellectual level, as a result of which they become more conscious of thier intellectual capability. This naturally leads them to



have higher aspirations and to expect better facilities, which, in most of the cases, are denied to them. Consequently, females face more problems and frustrations; they rather fail to adjust themselves to the social environment. Studies carried on in Western culture have not revealed any difference the high creative males' and the females' adjustment.

Similar observation has been made by Bhagia<sup>8</sup> (1966) he has observed that girls exceed in their school adjustment. Further, the researcher has noted down the point that in comparison with other adjustment areas, the high creative group scored higher on social adjustment showing its slight dissatisfaction with social aspects. This was probably due to the fact that social problems like 'how to be popular'; 'how to get along with others', worried the adolescents.

TABLE NO. 4.17

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
MALE AND HIGH CREATIVE FEMALE ON VOCATIONAL INTERESTS

No.	Vocational Areas	MALE			FEMALE			t-ratio
		N	M	S.D.	N	M	S.D.	
1.	Literary	19	5.34	5.12	11	6.78	3.23	1.26
2.	Scientific	19	9.66	3.57	11	12.80	3.78	2.40 *
3.	Executive	19	9.34	5.59	11	9.23	3.71	.06
4.	Commercial	19	4.45	5.61	11	4.41	3.68	.02
5.	Constructive	19	2.71	3.35	11	3.41	1.97	.67
6.	Artistic	19	4.29	3.39	11	7.14	2.80	2.18 *
7.	Agricultural	19	4.72	4.29	11	5.59	3.23	.62
8.	Persuasive	19	5.24	4.16	11	7.59	3.44	1.70
9.	Social	19	7.24	6.24	11	12.60	6.26	2.35 *
10.	Household	19	3.14	3.04	11	9.59	5.41	4.51 **

**Note-\*** Difference significant at .05 level.

**\*\*** Difference significant at .01 level.

Table No. 4.17 presents the means, S.D.'s and t-ratios computed for the high creative male and the high creative female in various vocational areas. The high creative male and the female differed significantly on scientific, artistic, social and

household vocational areas, as t-ratios- 2.40, 2.18, 2.35 and 4.51 respectively, which were significant at .05 and .01 level of confidence. But, the higher mean values of the high creative female in these areas showed that females of this district preferred scientific, artistic, social and household vocations more than their corresponding counterparts. Further, the female high creative also preferred persuasive, executive and literary jobs in comparison with the high creative male, indicated by their higher mean values in these vocational areas.

#### DISCUSSION

In the group of the high creative female scientific, social and household were the three highest ranking interest areas while in the group of the high creative male scientific, executive and social the highest ranking interest areas. In both the groups scientific vocation has been placed in the first preference. This is quite clear that students have full knowledge of the widening and current required spectrum of vocations in this age of scientific and technological advancement. Both the groups were also interested in executive vocation, though this difference was not significant. Results shown in Table No. 4.17 indicated the fact that females of this district were more

advanced in selecting the vocations of current demand. For this, the one reason may be the continuous and more attention being paid by our Government towards women education in recent years, the other reason may be attributed to the trend which showed that females also had, to some extent interest in the widening spectrum of vocations. Even then, the preference of the high creative female for household works is a natural outcome of the sex stereotyped expressed in their high traditional way of living.

Many students had shown that male and female differed significantly with regard to their vocational interests of the high creative and the low creative were available to cite here. However, our findings resembled the findings of Rawal (1984)<sup>9</sup>, who has deduced that girls preferred social and household jobs, while boys tended to give preference to scientific and executive vocations. Thus, sex played an important role in the vocational interests of the gifted students. The difference in sex appeared to be associated with sex role expectation Woods, Margaret Elinor<sup>10</sup>, (1971).

TABLE NO. - 4.18

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
MALE AND HIGH CREATIVE FEMALE ON ACADEMIC-ACHIEVEMENT

Sex	N	M	S.D.	t-ratio	Level of Significance
MALE	19	62.55	6.45	.32	N.S.
FEMALE	11	63.23	4.93		

It is evident from the Table No. 4.18 that there was no significance of difference between the high creative male and the high creative female students. Both the groups had nearabout equal mean values, both were better in their academic-achievement, since academic-achievement and creativity are correlated. So the high creative students must have good academic-achievement to his credit.

II comparison of low creative male and low creative femle on different variables.

TABLE NO. 4.19  
SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
MALE AND LOW CREATIVE FEMALE ON ADJUSTMENT

Adjustment	MALE			FEMALE			t-ratio
	N	M	S.D	N	M	S.D.	
Emotional	19	2.40	2.84	11	1.45	2.25	1.02
Social	19	5.02	1.52	11	5.41	2.46	.57
Educational	19	3.14	2.25	11	1.78	1.95	1.74
Total	19	9.19	5.34	11	7.69	4.06	.86

Regarding the adjustment, the comparison of the low creative on the basis of sex was also carried out in Table No. 4.19. The significance of difference between the means of the low creative male and the

female for emotional adjustment is 1.02 which was not being significant at any level. Both the groups were emotionally stable. The difference was consistent with the difference found in case of the high creative on the basis of sex regarding emotional adjustment.

Further, in case social adjustment, these two groups did not differ statistically. They had shown 'average' adjustment. The findings were reverse of that of the high creative on the basis of sex, as the low creative male or female did not have high aspirations, so they therefore, were able to accept the society's low creative level aspirations from them. But, as far as the higher mean values of both the groups in this adjustment (Social) then other adjustment areas is concerned, the researcher has previously explained it that adolescents worried much about their social adjustment.

Again, on the educational adjustment both the groups were not statistically different. The females were smaller in scoring than the males; and the low creative female showed superior educational adjustment, though this difference was not significant.

This difference was again consistent with the difference as was the case the high creative.

Similarly, on total adjustment the

difference between the means of two groups was not significant. The females were more adjustment than males. This is most probably due to the that the low creative females do not have high aspirations, so they accepted at low creative level the exectations of the society from them.

TABLE NO. 4.20

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
MALE AND LOW CREATIVE FEMALE ON VOCATIONAL INTEREST

No. Vocational Areas	MALE			FEMALE			t-ratio
	N	M	S.D.	N	M	S.D.	
1. Literary	19	6.61	5.25	11	7.78	4.76	.77
2. Scientific	19	10.14	4.02	11	10.13	2.96	.08
3. Executive	19	11.34	4.95	11	9.77	4.32	.92
4. Commercial	19	5.60	5.61	11	5.96	2.49	.28
5. Construc- tive	19	3.87	4.72	11	4.32	2.62	.34
6. Artistic	19	6.40	5.71	11	9.54	2.10	1.92*
7. Agricultur- al	19	6.61	4.61	11	4.32	3.24	1.50
8. Persuasive	19	7.24	3.48	11	8.40	3.11	.96
9. Social	19	8.50	4.85	11	12.13	3.91	2.25*
10. Household	19	5.56	4.24	11	10.23	4.51	2.96**

NOTE -

\* Difference significant at .05 level

\*\* Difference significant at .01 level

From the perusal of Table No. 4.20 it is clear that there<sup>were</sup> significant difference between the low creative male and the low creative female regarding their interest in artistic, social and household vocations, as the t-ratios 1.96, 2.25 and 2.96 respectively were significant at .05 and .01 levels. But in these vocational areas the mean values were in favour of the low creative female group. Thus, it is clear that the females preferred artistic, social and household jobs. On the other hand the male low creative preferred scientific, executive and social vocations, which was indicated by their higher mean values in these vocations. The same findings regarding social and household vocational interests were found in the interpretation of the high creative group on the basis of sex. In the female low creative group social, household and scientific were the three highest ranking interests areas, while in the male low creative group executive, scientific and social were the top most ranking interests.

TABLE NO. 4.21

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF THE LOW  
CREATIVE MALE AND LOW CREATIVE FEMALE ON  
ACADEMIC-ACHIEVEMENT

Sex	N	M	S.D.	t-ratio	Level of Significance
MALE	19	45.50	3.30	2.50	S.at .05
FEMALE	11	48.23	2.45		



In table No. 4.21 for academic-achievement the low creative differed significantly at .05 on the basis of sex. The mean value (48.23) was in favour of low creative females, indicating that the females showed better achievement than the male group. The same finding was also observed in the case of the high creative on the basis of sex, although the difference was not significant.

#### **B. FACULTY-WISE COMPARISON :**

Further, the analysis of the adjustment, vocational interests and academic-achievement of the high creative and the low creative on the basis of faculty (Arts or Science) was made to find out whether the subjects of study interact in any significant role in comparing both the groups separately.

#### **I COMPARISON OF HIGH CREATIVE STUDENTS OF ARTS AND SCIENCE GROUPS ON DIFFERENT VARIABLES**

**TABLE NO.- 4.22**

#### **SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE SCIENCE AND HIGH CREATIVE ARTS GROUPS ON ADJUSTMENT**

Adjustment	<u>ARTS GROUP</u>			<u>SCIENCE GROUP</u>			t-ratio
	N	M	S.D.	N	M	S.D.	
Emotional	7	1.71	1.53	23	1.87	1.47	.27
Social	7	5.36	1.76	23	5.98	3.48	.46
Educational	7	1.45	1.37	23	2.94	2.04	1.91
Total	7	8.78	2.18	23	10.08	6.35	.53

In case of the high creative students in Table No. 4.22 t-ratios were not significant for any adjustment problem, indicating that there was no difference between the high creative science and the high creative arts groups regarding their adjustment. The mean values of arts group were lower than those of the science group showing that the high creative art group was more adjusted in comparison with the corresponding group, though the mean values were not significant in any case. Thus, on the above basis, it can be safely said that faculty does not play its role in the adjustment of high creative ones. Badami<sup>11</sup> (1967) concluded that there was significant difference between the total number of adjustment problems faced by the students under the faculty of Arts, Science and Commerce. But our findings did not agree with those of Badami's regarding the adjustment, the reason for this may be the different nature of study and the error of sampling and so far on.

TABLE NO. 4.23

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE SCIENCE  
AND HIGH CREATIVE ARTS GROUPS ON VOCATIONAL INTERESTS

No. Vocational Areas	ARTS GROUP			SCIENCE GROUP			t-ratio
	N	M	S.D.	N	M	S.D.	
1. Literary	7	8.93	4.40	23	4.94	4.44	2.17*
2. Scientific	7	8.78	1.91	23	11.55	3.91	1.98*
3. Executive	7	10.78	4.44	23	8.55	5.26	1.06
4. Commercial	7	6.71	5.62	23	3.37	3.12	1.96*
5. Constructive	7	2.50	2.09	23	2.98	2.85	.42
6. Agricultural	7	5.08	3.92	23	4.42	3.69	.42
7. Artistic	7	8.65	3.49	23	4.29	2.88	3.44**
8. Persuasive	7	5.65	4.30	23	6.37	4.09	.42
9. Social	7	6.55	5.12	23	10.06	5.04	1.70
10. Household	7	5.22	3.80	23	5.55	5.19	.15

Note :- \* Difference Significant at .05 level.

\*\* Difference Significant at .01 level.

From the Table No. 4.23, showing comparison of the high creative students in arts and science faculty, it was evident that t-ratios - 2.17, 1.98, 1.96 and 3.44 were statistically significant in the case of literary, scientific, commercial and artistic vocational areas respectively. The higher mean values of the high creative arts group in literary, artistic and commercial jobs showed that the high creative students studying in arts faculty preferred literary, artistic and commercial vocations. On the other hand, the higher mean values in scientific, social and executive jobs favoured the high

creative students who were studying Science subjects. In the case of the high creative arts students executive, literary and artistic were the three top most ranking interest areas, while in the case with the high creative science students, scientific vocation was the most favourable, social and executive were placed in II & III in order of preference. Thus, the executive vocational area is common in both groups.

### DISCUSSION

In this comparison, faculty (Arts or Science) plays an active role. The students of the high creative art group scored higher in executive, literary and artistic vocational areas, while the high creative science group in executive, science and social areas. The difference between the High creative science group and the high creative arts group consists in the pattern of study they are engaged in. Science, as a subject demanding a specific technical skill, develops in the students certain ways of looking at things and it significantly differs from that of arts students. This difference presumably cause them to develop different vocational interests. A similar difference between the high creative of arts and science faculty was reported in the studies of Kulshrestha (1968)<sup>12</sup>, Kelarikova (1977)<sup>13</sup>, Cervenka (1977)<sup>14</sup> and Rawal (1984)<sup>15</sup>.

TABLE NO. 4.24  
SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH  
CREATIVE SCIENCE AND HIGH CREATIVE ART GROUPS ON  
ACADEMIC-ACHIEVEMENT

Faculty	N	M	S.D.	t-ratio	Level of Significance
ARTS	7	60.22	1.98	2.71	S.at.01
SCIENCE	23	63.33	5.60		

It is obvious from the Table No. 4.24 that the difference between the means of high creative students studying in arts and science faculties in the academic-achievement was 3.11, which was being significant at .01 level. The academic performance of the students of the science group was higher than that of the students, offering arts subjects. It was clearly indicated that students of science faculty surpass those of arts faculty in this comparison. It was due to the fact that science as a subject demanding intellect and specific skill, so the students of this faculty achieved higher in academic performance than their corresponding faculty. Further, this may be partly due to the fact that relatively intellectually superior students seek admission to science courses. As there is no previous

reference available on comparing the high creative group on the basis of faculty, nor can such studies be cited here either in support of or in contradiction to the results obtained in the present study.

II. Comparison of low creative students of Arts and Science groups on different variables

TABLE NO. - 4.25

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE SCIENCE AND LOW CREATIVE ARTS ON ADJUSTMENT

Adjustment	<u>ARTS GROUP</u>			<u>SCIENCE GROUP</u>			t-ratio
	N	M	S.D.	N	M	S.D.	
Emotional	10	2.70	2.42	20	1.80	2.37	1.00
Social	10	5.70	2.56	20	4.80	1.85	1.24
Educational	10	2.50	2.00	20	2.70	2.35	.24
Total	10	10.50	4.02	20	7.75	4.46	1.64

It can be noted from the Table No. 4.25 that the low creative students of arts and science faculties did not differ significantly in their adjustment. The mean values of the students belonging to the arts groups were higher than those of the students of science group. This has led us to assume that the high creative students of science group feel more adjusted than those of the arts group. This

difference was consistent with the difference found between the high creative students of the science and the arts groups. Here, again faculty does not play any significant role, while comparing the low creative students.

TABLE NO. - 4.26

SIGNIFICANCE OF DIFFERENCE MEANS OF LOW CREATIVE SCIENCE AND  
LOW CREATIVE ARTS GROUPS ON VOCATIONAL INTEREST

No. Vocational	<u>ARTS GROUP</u>			<u>SCIENCE GROUP</u>			t-ratio
	N	M	S.D.	N	M	S.D.	
1. Literary	10	10.80	3.66	20	5.45	4.07	3.51 <sup>**</sup>
2. Scientific	10	9.40	4.40	20	10.35	3.21	.61
3. Executive	10	11.90	4.54	20	9.30	5.31	1.34
4. Commercial	10	8.30	4.66	20	6.30	4.60	1.72
5. Constructive	10	5.30	4.28	20	5.50	4.35	.12
6. Artistic	10	9.70	4.40	20	5.70	4.75	2.29 <sup>*</sup>
7. Agricultural	10	7.50	4.73	20	5.00	4.59	1.42
8. Persuasive	10	9.30	3.40	20	6.55	3.82	1.96 <sup>*</sup>
9. Social	10	12.80	3.43	20	7.90	5.55	2.63 <sup>**</sup>
10. Household	10	10.10	4.45	20	5.60	4.45	2.50 <sup>*</sup>

NOTE : \* Difference significant at .05 level.

\*\* Difference significant at .01 level.

The comparison of the low creative students belonging to arts and science groups was also carried out. The results given in Table No. 4.26 indicates that the low creative students of arts group differ significantly from those of the science group in literary, artistic persuasive, social and household vocational interests as their t-ratios being 3.51 (sig. at .01), 2.29 (sig. at .05), 1.96 (sig. at .05), 2.63 (sig. at .01) and 2.50 (sig. at .05) respectively. In these significant differences the mean values were in favour of the low creative arts group which clearly pointed out that student studying in arts faculty preferred literary, artistic, household, persuasive and social jobs. This was due to the nature of their study they were engaged in. On the other hand the low creative students of science faculty were higher in scientific and executive jobs while lower in artistic literary and household vocational areas. executive vocation was preferred by both the groups, though the difference is not significant. This both the groups, though the difference is not significant. This executive was the common vocation in both the groups.

### DISCUSSION

Thus, the difference between the low creative arts students Vs. the low creative science



students was in the line of the difference found between the high creative students of science and arts group alike. Our findings of this difference agreed with the results of Mehta & Bhatnagar (1984)<sup>16</sup> and Rawal (1984)<sup>17</sup> who reported that the students belonging to the science group showed their interest in scientific and technical vocations, where as the art's students in artistic, literary and household vocations.

TABLE NO. 4.27

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
SCIENCE AND LOW CREATIVE ARTS GROUPS ON  
ACADEMIC-ACHIEVEMENT

Faculty	N	M	S.D.	T-ratio	Level of Significance
ARTS	10	48.80	3.66	2.81	S.at .01
SCIENCE	20	44.50	4.24		

Table No. 4.27 shows the mean, S.D. and t-ratio of the low creative science and the low creative arts students in their academic-achievement. Here, the difference in means of both the groups for academic-achievement was 4.30 which was significant at .01 level. The mean of the low creative science students was less than that of the low creative arts.

It clearly showed that the arts group were better in their academic-achievement in comparison with the other group. This finding was not line with the finding arrived at earlier in the case of the comparison of the low creative students on the basis of faculty.

#### 4.3 LONGITUDINAL COMPARISON

(Comparison of the high creative and the low creative in two academic sessions on the same variables).

In the following pages, the investigator is going to compare the high creative and the low creative longitudinally i.e. both the groups were compared in two academic sessions on the same variables by administering the same tools. The investigation was planned into two academic sessions, namely, those of 1993-94 and 1994-95.

In the first session the high creative and the low creative students were selected from the total sample by the aid of creative test, then the students of these groups were administered Adjustment Inventory and Vocational Interest Record to gather the information about their adjustment and vocational interests. Further, in the second or next, the same inventory and record were repeated on those the high creative and the low creative students again to identify the stability of their ideas and validity of tools. Means, Standard

Deviations for all the variables of the second session were calculated on the same pattern, then 't' test was applied with a view to finding out the significance of difference between the means of two sessions on different variables for both the groups separately. In this comparison variable academic-achievement was not considered, because in the present study academic-achievement was nothing but simply the percentage of total marks secured by students in High School Examination, which remained similar in both sessions.

A Variable No. 1 - ADJUSTMENT

TABLE NO. 4.28

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
STUDENTS IN TWO SESSIONS ON ADJUSTMENT

Adjustment Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
<u>EMOTIONAL</u>						
Male	19	2.04	1.38	2.08	1.38	.09
Female	11	1.78	1.54	1.78	1.28	.00
Arts	7	1.71	1.53	2.22	1.27	.49
Science	23	1.87	1.47	2.00	1.46	.30
<u>SOCIAL</u>						
Male	19	4.93	3.13	5.08	2.72	.16
Female	11	7.86	3.05	7.78	2.78	.05
Arts	7	5.36	1.76	5.50	2.14	.15
Science	23	5.98	3.48	6.29	3.03	.32

1	2	3	4	5	6	7
<u>EDUCATIONAL</u>						
Male	19	2.82	2.07	2.40	1.88	.67
Female	11	2.53	2.16	2.32	1.98	.24
Arts	7	1.45	1.37	1.15	1.02	.46
Science	23	2.94	2.04	2.93	1.95	.01
<u>TOTAL</u>						
Male	19	8.93	5.74	8.40	4.91	.31
Female	11	10.50	5.95	11.60	5.14	.47
Arts	7	8.78	2.18	7.07	3.33	1.14
Science	23	10.50	4.02	9.59	4.39	.31

As can be noted Table No. 4.28, there was no significant mean difference in the high creative students of second session on any of the adjustment problems. The data yielded by this comparison established, on the whole, that adjustment remained the same in the second session as in the first session. Thus, the high creative students were stable in their adjustment. Secondly, our tool- Adjustment Inventory was also valid. As the present researcher has not coming across any relevant study on this subject, she is not in the position to cite here any study either in support or contradiction of the result.

TABEL NO. 4.29

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
STUDENTS IN TWO SESSIONS ON ADJUSTMENT

Adjustment Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
<u>EMOTIONAL</u>						
Male	19	2.40	2.84	2.40	2.86	.00
Female	11	1.45	2.25	1.72	1.78	.32
Arts	10	2.70	2.42	2.50	2.19	.93
Science	20	1.80	2.32	2.10	2.33	1.30
<u>SOCIAL</u>						
Male	19	5.02	1.52	5.81	1.49	1.64
Female	11	5.41	2.46	6.04	2.27	.63
Arts	10	5.70	2.56	5.50	2.40	.57
Science	20	4.80	1.85	5.06	1.73	1.44
<u>EDUCATIONAL</u>						
Male	19	3.14	2.25	3.02	1.69	.99
Female	11	1.78	1.98	1.78	1.54	.00
Arts	10	2.50	2.00	2.30	1.40	.83
Science	20	2.70	2.38	2.70	1.88	.00
<u>TOTAL</u>						
Male	19	9.19	5.34	10.80	3.87	1.09
Female	11	7.69	4.06	8.77	2.98	.72
Arts	10	10.50	4.02	9.80	3.48	1.34
Science	20	7.75	4.46	8.33	3.92	1.40

Inspection of data present in Table No.

4.29 reveals that the low creative students, when compared in two academic for adjustment, did not differ significant in any case. This clearly showed that even the low creative students were stable and firm in their adjustment. They scored the same in the second session as in first session. The difference, here was consistent with the difference deduced in the case of comparison of the high creative students.

B. Varibale no. 2 - Vocational Interests

TABLE NO. 4.30

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE STUDENTS IN TWO SESSIONS ON LITERARY VOCATIONAL INTERESTS

Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
Male	19	5.24	5.12	6.82	4.36	.98
Female	11	6.78	3.33	9.59	2.99	2.11*
Arts	7	8.73	4.40	12.65	2.35	2.14*
Science	23	4.49	4.44	6.76	3.90	1.56

TABLE NO. - 4.31

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SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE STUDENTS IN TWO SESSIONS ON SCIENTIFIC VOCATIONAL INTEREST

Group	N	FIRST SESSION (1993-94)		SCOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
Male	19	9.66	3.57	10.65	3.57	.87
Female	11	12.78	3.74	10.77	4.64	1.00
Arts	7	8.78	1.91	5.79	3.14	2.23*
Science	23	11.56	3.91	12.19	3.62	.60

TABLE NO . 4.32

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE STUDENTS IN TWO SESSIONS ON EXECUTIVE VOCATIONAL INTEREST

Group	N	FIRST SESSION (1993-94)		SCOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
Male	19	9.34	5.59	13.28	4.65	2.40*
Female	11	9.23	3.71	11.14	4.31	1.68
Arts	7	10.78	4.41	7.78	2.18	1.66
Science	23	8.55	5.26	11.32	4.86	1.96*

TABLE NO. 4.33

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
STUDENTS IN TWO SESSIONS ON COMMERCIAL VOCATIONAL  
INTEREST

Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
Male	19	4.45	5.51	4.92	3.42	.32
Female	11	4.41	3.60	4.04	2.49	.28
Arts	7	6.21	5.62	4.79	4.49	.54
Science	23	3.37	3.12	4.45	2.59	1.46

TABLE NO. 4.34

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
STUDENTS IN TWO SESSIONS ON CONSTRUCTIVE VOCATIONAL  
INTEREST

Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
Male	19	2.71	3.25	2.24	2.24	.59
Female	11	3.41	1.97	3.00	2.14	.47
Arts	7	2.50	2.09	2.22	2.18	.25
Science	23	2.98	2.85	2.59	2.22	.54



TABLE NO. 4.35

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
STUDENTS IN TWO SESSIONS ON ARTISTIC VOCATIONAL INTEREST

Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-traio
		M	S.D.	M	S.D.	
Male	19	4.29	3.99	6.03	3.54	1.45
Female	11	7.14	2.80	9.04	2.08	1.54
Arts	7	8.65	3.49	8.65	2.64	.00
Science	23	4.29	2.88	6.63	3.90	2.43*

TABLE NO . 4.36

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
STUDENTS IN TWO SESSIONS ON AGRICULTURAL VOCATIONAL INTEREST

Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
Male	19	4.72	4.29	4.45	3.65	.21
Female	11	5.59	3.23	4.04	2.49	1.29
Arts	7	5.08	3.92	4.87	4.06	.10
Science	23	4.42	5.00	4.42	2.99	.00

TABLE NO. 4.37

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
STUDENTS IN TWO SESSIONS ON PERSUASIVE VOCATIONAL INTERES

Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		.t-ratio
		M	S.D.	M	S.D.	
Male	19	5.24	4.16	6.97	3.69	1.38
Female	11	7.59	3.44	8.40	3.67	.54
Arts	7	5.65	4.30	6.92	4.06	.58
Science	23	6.37	4.09	7.67	3.56	1.35

TABLE NO. 4.38

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
STUDENTS IN TWO SESSIONS ON SOCIAL VOCATIONAL INTEREST

Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		†-ratio
		M	S.D.	M	S.D.	
Male	19	7.24	6.24	6.01	3.67	.87
Female	11	12.50	6.26	13.30	3.85	.36
Arts	7	6.55	5.12	6.08	2.96	.21
Science	23	10.06	5.04	9.50	5.38	.38

TABLE NO. 4.39

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF HIGH CREATIVE  
STUDENTS IN TWO SESSIONS ON HOUSEHOLD VOCATIONAL  
INTEREST

Group	N	FIRST SESSION (1993-94)		SCOND SESSION (1994-95)		t-ratio
		M	S.D	M	S.D.	
Male	19	3.14	3.04	3.35	2.27	.25
Female	11	9.59	5.41	11.41	3.89	.92
Arts	7	5.22	3.80	8.50	5.55	1.33
Science	23	5.50	4.45	5.72	4.35	.18

Note - \* Difference significant at .05 level.

While comparing the high creative students in two academic sessions (1993-94 and 1994-95) regarding vocational interests only six mean differences were significant. Table No. 4.30 reveals that the high creative in case of female group score higher in the scond session that in the first session regarding literary vocation, the mean difference was significant at .05, level. Therefore, it can be solely said that the high creative students differed in their literary interest after one year. This might be due to the fact that the female group was more satisfied with this

subject, the reason perhaps being the congenial and uncongenial experiences undergone by them in the study of the literary subject. The same case was reported in the matter of the high creative arts group. This group was also significantly different while comparing the literary vocational in two academic sessions. This difference might be due to the nature of subject study or faculty they were engaged in. The students of arts faculty preferred this job or vocation rather than those of other groups. The rest of groups did not differ statistically in this vocation.

From the perusal of Table No. 4.31 out of four groups of the high creative students only the arts group differed significantly in scientific vocational interest of two academic sessions. This difference (2.23) was significant at .05 level. The reason for this in two session might be that in the first session these students when they were studying in XI class, were not conversant with this subject. But now when this record was repeated after one year, they scored in real sense because the students of arts faculty did not like scientific and technical jobs. Secondly, when this interest record was repeated two times, the students understood it properly and in the second time they showed their real, stable and keen interest in this vocational interest.

Further, Table No. 4.32 has led us to assume that the scores obtained for the executive vocational interest by the high creative male and science students in two academic sessions differed. The 't' values in these cases were 2.40 and 1.96 respectively, which were found to be significant at .05 level. But the scores of executive job in these cases be a widening spectrum of this vocation in which male and science groups had more interest.

In Table No. 4.33 and 4.34 none of 't' Values was significant regarding commercial and constructive vocations. This clearly showed that even after one year the high creative students were firm and stable in their preferences of these vocations. Further, Table No. 4.35 showed that only one 't' value (2.43) that was in case of the science group regarding artistic vocational interest, was statistically significant at .05 level. The reason might be that in this longitudinal comparison the high creative science expressed their ideas and interest in artistic vocation, which tended to cluster about the more abstract school subjects. Three remaining in case of the high creative students do not differ so far as the artistic vocation is concerned. Again, in Table No. 4.36, 4.37, 4.38 and 4.39, none of the mean differences was significant.

These findings were in line with those of Terman<sup>18</sup> (1925) in his longitudinal study of the gifted children, which showed that the expressed interests of these children had tended to cluster about the more abstract school subjects rather than those of making demands chiefly upon rote memory or manual skill.

TABLE NO. 4.40

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
STUDENTS IN TWO SESSIONS ON LITERARY VOCATIONAL INTEREST

Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
Male	19	6.61	5.25	6.40	5.08	.13
Female	11	7.78	4.76	7.86	4.12	.04
Arts	10	10.80	3.66	10.90	3.23	.21
Science	20	5.45	4.07	6.45	4.05	00

TABLE NO. 4.41

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
STUDENTS IN TWO SESSIONS ON SCIENTIFIC VOCATIONAL INTEREST

Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
Male	19	10.14	4.02	10.81	3.38	.72
Female	11	10.13	2.96	9.23	3.93	.62
Arts	10	9.40	4.40	6.90	3.49	4.54**
Science	20	10.35	3.31	11.45	2.89	3.79**

TABLE NO.- 4.42

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
STUDENTS IN TWO SESSIONS ON EXECUTIVE VOCATIONAL INTEREST

Group	N	<u>FIRST SESSION</u> <u>(1993-94)</u>		<u>SECOND SESSION</u> <u>(1994-95)</u>		t-ratio
		M	S.D.	M	S.D.	
Male	19	11.34	4.95	10.81	3.21	.40
Female	11	9.77	4.32	6.86	3.34	1.73
Arts	10	11.90	4.54	8.60	4.25	5.41**
Science	20	9.30	5.31	9.60	3.68	.65

TABLE NO. 4.43

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
STUDENTS IN TWO SESSIONS ON COMMERCIAL VOCATIONAL INTEREST

Group	N	<u>FIRST SESSION</u> <u>(1993-94)</u>		<u>SECOND SESSION</u> <u>(1994-95)</u>		t-ratio
		M	S.D.	M	S.D.	
Male	19	5.50	5.61	5.72	4.22	.14
Female	11	5.96	2.49	6.23	2.98	.23
Arts	10	8.30	4.66	7.70	3.60	1.03
Science	20	5.30	4.60	4.85	3.48	1.09

TABLE NO . 4.44

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
STUDENTS IN TWO SESSIONS ON CONSTRUCTIVE VOCATIONAL  
INTEREST

Group	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
Male	19	3.87	4.72	3.19	3.36	.11
Female	11	4.32	2.62	3.23	2.00	1.11
Arts	10	5.30	4.28	4.20	3.66	1.94
Science	20	5.50	4.35	2.45	2.37	5.85**

TABLE NO. 4.45

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
STUDENTS IN TWO SESSIONS ON ARTISTIC VOCATIONAL INTEREST

Group	N	FIRST SESSION (1993-94)		SCOND SESSION (1994-95)		t-ratio
		M	S .D.	M	S.D.	
Male	19	6.40	5.71	5.56	4.11	.53
Female	11	9.04	2.10	7.70	3.64	1.07
Arts	10	9.70	4.40	9.60	3.43	.18
Science	20	5.70	4.75	5.60	3.56	.24



TABLE NO. 4.46

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
STUDENTS IN TWO SESSIONS ON AGRICULTURAL VOCATIONAL  
INTEREST

<u>Group</u>	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
Male	19	6.61	4.69	6.50	3.51	.08
Female	11	4.32	3.24	5.96	3.34	1.18
Arts	10	7.50	4.73	4.40	3.30	5.44**
Science	20	5.00	4.59	4.85	3.96	.35

TABLE NO. 4.47

SIGNIFICANCE OF DIFFERENCE BETWEEN MEANS OF LOW CREATIVE  
STUDENTS IN TWO SESSIONS ON PERSUASIVE VOCATIONAL  
INTEREST

<u>Group</u>	N	FIRST SESSION (1993-94)		SECOND SESSION (1994-95)		t-ratio
		M	S.D.	M	S.D.	
Male	19	7.24	3.48	7.35	3.29	.10
Female	11	8.40	3.11	7.59	1.93	.75
Arts	10	9.20	3.40	7.10	1.92	5.38**
Science	20	6.55	3.82	7.35	3.21	2.28*



Table No. 4.40 reveals the fact that the interests of the low creative students in the literary jobs had not changed, as remained equal in both the sessions, as no mean values were significant. In Table No. 4.41, two 't' values were very significant, one in the case of arts group (4.54) and the other in the case of science group (3.79). The low creative student's scores on scientific vocational area were lower in the second session than those in the first session. This was most probably due to the fact that in the second session the students of arts group have understood comparatively much about this scientific vocation. Their unsatisfactory experiences in this vocation tended them to give low scoring in the second session. In the second session they showed their actual interest in case of arts and science groups.

One 't' value in Table No. 4.42 was significant which was in the case of low creative arts group. The scoring of this group in the second session regarding executive vocation was lowered or decreased, indicating that this highly intellectual and wide vocation was out of their capacities in their views. Further, in Table No. 4.44 one mean difference which was in the case of the low creative science group, was significant. The students of this group scored lower in

the second session than that in the first session, which showed that these students were not more interested in constructive vocations. In Table No. 4.43 and 4.45 no mean values were significant in any case.

Table No. 4.46 showed that the case of the arts group the mean difference was very significant (5.44) regarding agricultural vocational interest. The low mean value in the second session clearly revealed that the students of this group were least interested in this vocation. This might be due to their unstable ideas or due to the effect of other factors as well. Inspection of the data of Table No. 4.47 indicated that the students of arts group again showed their least interest in persuasive vocational interest, while in case of the science group the scoring in this vocation in the second session increased, which showed that they were more interested in corresponding vocational area. In both the cases the differences were being significant at .01 level and .05 level respectively.

In table No.4.48 two 't' values first in the lowcreative arts group (4.10) and the other in case of the science group (3.95), were significant at .01 level of confidence. This difference showed the change in their interests in two sessions regarding the social vocational areas. The reason for the difference might

most probably be due to instability of student's mind and past experiences they gained. Further, the Table No. 4.49 reported that the difference between the means of the arts group in two sessions regarding household vocation was 1.50, in favour of the second session, the difference being significant at .05 level.

Thus, while observing the difference of the low creative students in two sessions regarding vocational interests, one fact came into light that all the significant mean differences were in the cases of arts and science groups. This clearly indicated the faculty here played an eminent role. The main reason of these differences was that interests that resulted from the congenial and uncongenial experiences in dealing with an object or activity. In one year's time interval the students had easily understood the test and inventory, and they gained more experience about the subjects they were engaged in. Lastly, in this age (adolescent age) students are not stable and firm in their ideas, they change their mind affected by other related factors.

#### **4-4 CALCULATION OF CORRELATION**

Although, the primary purpose of the

present research project was to compare the high creative and the low creative students on different variables, the correlation analysis had also been done to test the extent of relationship among different variables, namely, adjustment, Vocational Interest and Academic-achievement of the high creative and the low creative. Pearson's product Moment Method was applied to compute the correlations and the significant values were tested at .05 and .01 level in accordance to the table no. 13 by Lindquist<sup>19</sup>.

Correlations between adjustment and academicachievement have been shown in Table no.4.50 in all the four groups of the high creative and the low creative students. In case of the male low creative and the male high creative groups none of the correlations was significant. All the correlations were moderate or low but not significant. This clearly indicated that in case of the male students academic-achievement and adjustment are not inter related. It is not necessary that the students having higher adjustment achieve good and better in their academic performance. Like-wise, in case of the female and the science groups of the high creative and the low creative students no correlation was significant. Most of the correlations were low and negative, some were positive but very low. In case of

TABLE NO. - 4.50

CORRELATION BETWEEN ADJUSTMENT & ACADEMIC-ACHIEVEMENT

Adjustment Groups		Emo- tional	Social	Educa- tional	Total Adjust- ment
Male	High Creative N=19	-.27	-.39	.03	-.08
	Low Creative N=19	.42	-.37	-.03	.03
Female	High Creative N=11	-.19	-.39	-.12	.46
	Low Creative N=11	-.47	.31	-.26	-.20
Arts	High Creative N=7	-.55	.22	.77*	-.11
	Low Creative N=10	-.02	.61*	-.65*	-.13
Science	High Creative N=23	-.02	-.02	.10	-.14
	Low Creative N=20	-.02	-.19	-.24	.08

Note = \* Correlation Significant at .05 Level.

the arts group of the high creative student only one correlation (.77) was found to be significant, this was in case of educational adjustment and academic achievement. This correlation was positive and significant at .05 level. This showed that the high creative students of the art group having higher academic-achievement were more satisfied with educational programme. Further, in case of the low creative of the arts group two correlations, one in social adjustment (.61) and other in educational adjustment (-.65) came to be significant at .05 level. There is a positive correlation between academic-achievement and social adjustment of the low creative students of the arts group. This clearly indicated the fact that the low creative student even showing, low academic-performance were socially adjusted. Again, there is a significant but negative correlation between the academic-achievement and educational adjustment of the some group.

Table no. 4.51 shows the relationship between different vocational interests and total adjustment of all the four groups of the high creative and the low creative groups. In case of the high creative male there was no relation-ship between



TABLE NO. 4.51

## Correlation between Adjustment and Vocational Interests.

Vocational Interests Groups	Lite	Scien- tific.	Execu- tive.	Commer- cial.	Constr- uctive	Artis- tic.	Agricul- tural.	Persua- sive.	Social	House- hold.
High Creative N = 19	-.04	.02	-.20	.03	-.37	.14	-.30	-.05	.17	.08
Male										
Low Creative N = 19	.24	.07	.05	.19	.27	.41	.39	.54*	.18	.45*
High Creative N = 11	.32	.14	.23	.22	-.02	.09	.48	.30	-.26	-.48
Female										
Low Creative N = 11	.10	-.70**	-.38	-.01	-.25	.17	.43	-.12	-.09	.74**
High Creative N = 7	.69*	-.37	-.20	-.39	-.77**	-.39	-.32	.37	-.37	-.33
Arts										
Low Creative N = 10	.15	-.34	.14	.38	.07	.17	.30	.20	.20	.05
High Creative N = 23	-.51*	-.31	-.12	.21	-.26	.16	.13	.25	-.03	-.07
Science										
Low Creative N = 20	-.13	.31	.04	-.46*	.22	.52*	.54*	.33	-.04	.19

Note : \* Correlation significant at .05 level.

\*\* Correlation significant at .01 level.

adjustment and various vocational interests which were included in this project, since none of the correlations was significant. While in case of male low creative group persuasive and household vocational interests were positively correlated with adjustment. This was clear from this correlation that well adjusted low creative students of male sex preferred these vocations. The remaining correlations in this case were positive but low and not significant.

In case of the female high creative students all the vocational interests was not related with the adjustment. All the correlations in the cases were low & not significant. Female students of the low creative group had positive and high correlation between adjustment and household vocational interest area. But in the same group there was negative relationship between adjustment and scientific vocation. The remaining eight vocations had very low and no significant correlation with adjustment.

In case of the high creative arts group two correlations, one (.69) is case of literary vocational interest and adjustment and other (-.77) between constructive vocational interest and adjustment were significant at .05 and .01 levels. On the other hand in case of the low creative students of arts group there was almost no relationship between any vocational

interest and adjustment as indicated by the low and insignificant correlations of this group.

Further, in case of the high creative students of science group correlation between adjustment and literary vocational interest when computed, came to be  $-.51$  which was found to very significant at  $.05$  level. This showed that there was a significant but negative correlation between literary vocational interest and adjustment. From this result it was clear that adjustment was negatively related to literary vocation. It is not necessary that a well adjustment student prefer this vocation. In case of low creative science group out of 10 vocations three vocations, namely, commercial, artistic and agricultural were correlated with adjustment. Commercial vocation negative correlation with adjustment, while artistic and agricultural vocations had positive correlation.

Table No. 4.52 shows the correlation between academic-achievement and all vocational interests of the high creative and low creative in all four groups, namely, male female, arts and science. In case of the male high creative and the low creative group all the correlations were very low but positive and not significant, while in the male low creative group correlation again were low, ranging from  $-.13$  to  $.25$ .

TABLE No. 4.52

## Correlation between Academic-Achievement and Vocational Interests.

Vocational Interests Groups	Lite rary.	Scien tific.	Execu tive.	Commer cial.	Constr uctive.	Artis tic.	Agricu ltural.	Persu asive.	Social	House- hold.
High Creative N = 19	-.009	.08	.20	.11	.20	.20	.21	.20	.15	.22
Male										
Low Creative N = 19	.25	-.27	-.13	.15	.35	.34	.23	-.20	.14	.19
High Creative N = 11	.23	.11**	.20	.29	.52	-.08	.006	-.16	.27	.57
Female										
Low Creative N = 11	.18	-.42	.46	.32	.06	.52	.21	.40	.13	.36
High Creative N = 7	-.36	-.12	.86*	.51	-.47	-.66*	-.56	-.59	.06	.23
Arts										
Low Creative N = 10	-.11	-.07	-.37	-.04	.38	.06	-.06	.10	-.02	-.10
High Creative N = 23	.14	-.09	.13	.45*	.13	.18	.15	.09	.11	-.01
Science										
Low Creative N = 20	-.33	.33	.08	-.04	-.20	-.20	-.05	.05	.35	-.27

Note : \* Correlation significant at .05 level.

\*\* Correlation significant at .01 level.

This shows that there was almost no relationship between academic-achievement and vocational interests as both the variables were not interrelated. It is not essential that a student achieving good performance, prefers a high level and scientific vocation. This depends upon his interests and also on other factors affecting the interests.

Further, it was found that academic-achievement had positive and high correlation with vocational preference of the high creative female group in scientific area, while for the low creative female group there was no significant correlation between vocational preference & academic-achievement. In case of the high creative arts group academic-achievement had positive correlation with preference in executive vocational area and negative correlation with preference in artistical vocation. Again, in case of the low creative arts group no correlation was significant. While observing the correlation between academic-achievement and different vocational interests, it was found that in case of the high creative science group only one correlation (.45) between commercial vocational preference and academic-achievement, came to be significant at .05 level. The remaining correlations in the high creative science group and the low creative science group were not high and significant.

Thus, it could be safely said that vocational interests were more or less correlated with academic-achievement. Interest could be said the predictor of achievement or in other words academic-achievement can not be said a motive for vocational preferences of students.

#### 4.5 ANALYSIS OF VARIANCE :

In order to test the hypotheses and to determine whether the difference between means of the high creative and the low creative for various variables signified real difference or could be explained in terms of chance fluctuations; the method of Analysis of variance was most frequency applied in educational research to analyse the results. In the present study analysis of variance was applied to see how each variable differed for groups of high creative and low creative students and also with respect to sub-groups, namely, Male, Female, Arts and Science.

**TABLE NO. 4.53**  
**F test- Emotional Adjustment of High Creative and Low**  
**Creative Students**

Group	Source of variation	df	Sum of Square	Mean Square (Variance)	F	Level of Significance
<b>MALE</b>	Between Means	1	1.26	1.26		
	Within Groups	36	179.28	4.98	.26	N.S.
<b>Female</b>	Between Means	1	.55	.55		
	Within Groups	20	74.30	3.71	.16	N.S.
<b>ARTS</b>	Between Means	1	8.16	8.16		
	Within Groups	15	66.69	4.44	1.83	N.S.
<b>SCIENCE</b>	Between Means	1	.25	.24		
	Within Groups	41	149.74	3.65	.06	N.S.

**TABLE NO. 4.54****F test - Social Adjustment of High Creative and Low Creative Students**

Groups	Source of variation	df	Sum of Square	Mean Square (Variance)	F	Level of Significance
<b>MALE</b>	Between Means	1	.80	.47	.06	N.S.
	Within Groups	36	217.80	6.05		
<b>FEMALE</b>	Between Means	1	33.44	33.44	4.36	S.at .05
	Within Groups	20	153.50	7.67		
<b>ARTS</b>	Between Means	1	.59	.59	.10	N.S.
	Within Groups	15	76.99	5.13		
<b>SCIENCE</b>	Between Means	1	14.86	14.86	1.83	N.S.
	Within Groups	41	331.30	8.08		



TABLE NO. 4.55

F test - Educational Adjustment of High Creative and Low Creative Students

Group	Source of Variation	df	Sum of Square	Mean Square (Variance)	F	Level of Significance
MALE	Between Means	1	1.14	1.14	.44	N.S.
	Within Groups	36	168.12	4.67		
FEMALE	Between Means	1	3.08	3.08	.72	N.S.
	Within Groups	20	84.60	4.23		
ARTS	Between Means	1	4.53	4.53	1.44	N.S.
	Within Groups	15	47.02	3.13		
SCIENCE	Between Means	1	4.30	4.30	.88	N.S.
	Within groups	41	199.06	4.85		

TABLE NO. 4.56

F test - Total Adjustment of High Creative and  
Low Creative Students

Group	Source of Variation	df	Sum of Square	Mean Square (Variance)	F	Level of Significance
MALE	Between Means	1	6.08	6.08	.02	N.S.
	Within Groups	36	1106.10	29.10		
FEMALE	Between Groups	1	43.34	43.34	1.67	N.S.
	Within Groups	20	518.00	25.14		
ARTS	Between Means	1	12.14	12.14	1.05	N.S.
	Within Groups	15	173.94	11.59		
Science	Between Means	1	57.74	57.74	1.88	N.S.
	Within Groups	41	1264.95	30.60		

From the Table No. 4.53, it was clear that none of the F values was significant showing that all the sub-groups in case of the high creative and the low creative students in emotional adjustment were homogeneous.

Table No. 4.54 indicated that in social adjustment of both the groups only one F value (4.36) in case of female sub-group was significant at .05 level. On this basis it could be easily predicted that differences between means for social adjustment of female sub-group of the high creative and the low creative students was significant. Rest of the sub-groups were homogeneous in social adjustment.

Further, in Table No. 4.55 no F values were significant in any case on the educational adjustment of the high creative and the low creative groups. The same difference was seen in Table No. 4.56 on total adjustment of the high creative and low creative groups where no F value were seen significant. Both groups were same and identical in comparison.

There is not even a single study regarding the analysis of variance on adjustment variable of the high creative and the low creative student in our knowledge. Thus, no study could be cited here in favour or contradiction to the finding of this study.

**TABLE NO. 4.57**  
**F test - Literary Vocational Interest of High Creative and**  
**Low Creative Students**

Group	Source of Variation	df	Sum of Square	Mean Square (Variance)	F	Level of Significance
<b>MALE</b>	Between means	1	14.01	14.01	.53	N.S.
	Within Groups	36	967.86	26.88		
<b>FEMALE</b>	Between Means	1	5.50	5.50	.33	N.S.
	Within Groups	20	337.30	16.86		
<b>ARTS</b>	Between Means	1	17.62	17.62	1.12	N.S.
	Within Groups	15	236.67	15.77		
<b>SCIENCE</b>	Between Groups	1	2.78	2.78	.15	N.S.
	Within Groups	41	748.26	18.25		

TABLE NO. 4.58

F test - Scientific Vocational Interest of High Creative and  
Low Creative Students

Group	Source of Variation	df	Sum of Square	Means Square (Variance)	Level of Significance
MALE	Between means	1	1.90	1.90	.13 N.S.
	within groups	36	520.20	14.45	
FEMALE	Between Means	1	38.50	38.50	3.38 N.S.
	Within Groups	20	227.40	11.31	
ARTS	Between means	1	9.70	9.70	.75 N.S.
	Within Groups	15	196.08	13.08	
SCIENCE	Between means	1	15.33	15.33	1.24 N.S.
	Within Groups	41	531.86	12.36	

TABLE NO. 4.59

F test - Executive Vocational Interest of High Creative andLow Creative Students

Groups	Source of Variation	df	Sum of Square	Mean Square (Variance)	F	Level of Significance
MALE	Between means	1	38.00	38.00	1.36	N.S.
	Within groups	36	1003.32	27.87		
FEMALE	Between means	1	15.84	15.84	.91	N.S.
	Within groups	20	324.20	16.21		
ARTS	Between means	1	3.57	3.57	.17	N.S.
	Within groups	15	302.13	20.14		
SCIENCE	Between means	1	8.23	8.23	.29	N.S.
	Within groups	41	1144.13	27.91		

TABLE NO. 4.60

F test - Commercial Vocational Interest of High Creative and  
Low Creative Students

Group	Source of Variation	df	Sum of Square	Mean Square (Variance)	F	Level of Significance
MALE	Between means	1	8.55	8.55	.27	N.S.
	Within groups	36	1113.94	30.94		
FEMALE	Between means	1	13.20	13.20	1.37	N.S.
	Within groups	20	119.60	9.58		
ARTS	Between means	1	18.47	18.47	.49	N.S.
	Within groups	15	565.47	37.69		
SCIENCE	Between means	1	39.83	39.38	2.65	N.S.
	Within groups	41	616.10	15.03		

TABLE NO. 4.61

F test - Constructive Vocational Interest of High Creative  
and Low Creative Students

Group	Source of variation	df	Sum of Square	Mean Square (Variance)	F	Level of Significance
MALE	Between means	1	12.92	12.92	.78	N.S.
	Within groups	36	602.82	16.74		
FEMALE	Between means	1	4.51	4.51	.84	N.S.
	Within means	20	107.40	5.37		
ARTS	Between means	1	32.24	32.24	2.54	N.S.
	Within groups	15	191.04	12.73		
SCIENCE	Between means	1	67.76	67.76	5.15	S.at .05
	Within groups	41	538.12	13.12		



TABLE NO. 4.62

F test - Artistic Vocational Interest of High Creative and  
LOW Creative Students

Group	Source of variation	df	Sum of Square	Mean Square (variance)	F	Level of Significance
<b>MALE</b>	Between means	1	42.18	42.18	1.74	N.S.
	Within groups	36	873.30	24.26		
<b>FEMALE</b>	Between means	1	19.80	19.80	3.23	N.S.
	Within groups	20	122.50	6.12		
<b>ARTS</b>	Between means	1	4.49	4.49	.27	N.S.
	Within groups	15	247.32	16.48		
<b>SCIENCE</b>	Between means	1	21.26	2.26	1.43	N.S.
	Within groups	41	611.02	14.90		

**TABLE NO. 4.63**  
**F test - Agricultural Vocational Interest of High Creative**  
**and Low Creative Students**

Group	Source of Varitation	df	Sum of Square	Mean Square (variance)	F	Level of Significance
<b>MALE</b>	Between means	1	33.82	33.82	1.67	N.S.
	Within groups	36	727.02	20.17		
<b>FEMALE</b>	Between means	1	8.80	8.80	.84	N.S.
	Within groups	20	209.20	10.46		
<b>ARTS</b>	Between means	1	24.14	24.14	1.25	N.S.
	Within groups	15	293.49	19.56		
<b>SCIENCE</b>	Between means	1	3.60	3.60	.21	N.S.
	Within groups	41	699.56	17.06		

TABLE NO. 4.64

F test - Persuasive Vocational Interest of High Creative and  
Low Creative Students

Group	Source of variation	df	Sum of Square	Mean Square (variance)	F	Level of Significance
MALE	Between means	1	38.00	38.00	2.58	N.S.
	Within groups	36	529.38	14.70		
FEMALE	Between means	1	3.63	3.63	.34	N.S.
	Within groups	20	215.00	10.75		
ARTS	Between means	1	51.89	51.89	3.62	N.S.
	Within groups	15	214.98	14.33		
SCIENCE	Between means	1	.34	.34	.02	N.S.
	Within groups	41	645.05	15.73		

**TABLE NO. 4.65**  
**F test - Social Vocational Interest of High Creative and Low**  
**Creative Students**

Groups	Source of Variation	df	Sum of Square	Mean Square (Variance)	F	Level of
<b>MALE</b>	Between means	1	14.82	14.82	.48	N.S.
	Within groups	36	1124.10	31.22		
<b>FEMALE</b>	Between means	1	.66	.66	.03	N.S.
	Within groups	20	544.70	17.23		
<b>ARTS</b>	Between means	1	160.72	160.72	9.15	S. at .01
	Within groups	15	263.10	17.54		
<b>SCIENCE</b>	Between means	1	49.86	49.86	1.77	N.S.
	Within groups	41	1144.00	27.80		

TABLE NO. 4.66

F test - Household Vocational Interest of High Creative and  
Low Creative Students

Group	Source of variation.	df	sum of Square.	Mean square (Variance)	F	Level of Significance
MALE	Between means	1	55.48	55.48	4.08	S.at.05
	Within Groups	36	489.78	13.60		
FEMALE	Between means	1	2.20	2.20	.09	N.S.
	Within Groups	20	496.10	24.80		
ARTS	Between Means	1	98.05	98.05	5.55	S.at. .05
	Within Groups	15	264.84	17.65		
SCIENCE	Between Means	1	.27	.27	.02	N.S.
	Within Groups	41	1039.28	25.34		

In Table No. 4.57, 4.58, 4.59, 4.60 it was indicated that in case of the high creative and the low creative on literary, scientific, executive and commercial vocational interests none of the F values was found to be significant. It showed that groups of the high creative and the low creative were identical and homogeneous on these vocations. Further, in Table No. 4.61 on constructive vocational interest only one case that science group was significant. Its significant value was 5.15. It showed that on this vocation science group of the high creative and the low creative was not homogeneous. However, on artistic, agricultural and persuasive vocational interests in Table No. 4.62, 4.63, 4.64 no F value was significant. Again, in Table No. 4.65 only one F value in case of arts group was significant on social vocational area. Similarly in Table No. 4.66 for household vocation two values were significant, one in case of male group (4.08) and other in case of arts group (5.55). It showed that both groups differed on these vocations.

The above discussion made it clear that the high creative and the low creative groups like male, female, arts and science had less number of significant values regarding different vocational interests. This might be due to the nature of the sample and difference in the number of cases of the groups.

**TABLE No. 4.67****F test - Academic-achievement of High Creative and  
Low Creative Student**

Groups	Source of Variation.	df	Sum of Square.	Mean Square (Variance)	F	Level of Significance.
<b>MALE</b>	Between Means	1	2761.65	2761.65	105.24	S.at.01
	Within Groups	36	944.82	26.24		
<b>FEMALE</b>	Between Menas	1	1083.50	108.50	71.51	S.at .01
	Within Groups	20	303.00	15.15		
<b>ARTS</b>	Between Means	1	526.96	536.96	33.07	S.at .01
	Within Groups	15	244.03	16.27		
<b>SCIENCE</b>	Between Means	1	3555.39	3555.39	141.11	S.at .01
	Within Groups	41	1032.55	24.18		

Table No. 4.67 which showed F test for variable Academic-achievement of the high creative and the low creative Students. Here, in all the cases F values were significant, showing that groups were not homogeneous.

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## CHAPTER - V : FINDINGS AND SUGGESTIONS

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## CHAPTER - V

### FINDINGS AND SUGGESTIONS

The scrupulous analysis and interpretation of data presented in the previous chapter led to certain conclusions and findings which are reported in the present chapter. This chapter was planned and carried out to test the tentative hypotheses and to achieve the corresponding objectives. Each of these hypotheses and their related objectives were evaluated in the light of the study. Then some findings were deduced. The recommendations for the benefit of these students, educational implications of this study, suggestions for further research and a few limitations of this project have also been mentioned in the end of this chapter.

#### 5.1 TESTING THE HYPOTHESES :

The first working hypothesis of the study was "There are significant differences between high creative and low creative students on the basis of their adjustment problems - emotional, social and educational", and the related objective was "To find out whether high creative and low creative students differ significantly on the basis of their adjustment." On analysing the results, this hypothesis was not acceptable. Because the difference between means of the high creative and the low creative students was found not to be significant on adjustment problems. Both the groups were identical in the

adjustment. They showed overall 'good', 'excellent' and average adjustment. Thus, the related objective was achieved.

The second hypothesis was "There are significant differences between the high creative and the low creative students in relation to their vocational interests" and the corresponding objective. "To find out whether high creative and low creative students differ significantly on their vocational interests." This hypothesis was accepted in the sense that the difference between the mean values of the high creative and the low creative were found to be significant in relation to the scientific, commercial and constructive vocational interests. The high creative students showed their interest in scientific vocation while the low creative in commercial and constructive vocations. But regarding literary, executive artistic, agricultural, social and household vocational interest, the difference between the means of these two groups was not statistically significant, so the above hypothesis could not be acceptable. Its corresponding objective was also achieved in the light of vocational interest of both the groups of study.

The third hypothesis was "There are significant differences between high creative and low creative students on the basis of their academic-achievement." Its related objective was "To find out whether high creative

and low creative students differ significantly on their academic achievement." This hypothesis was tested on the basis of Means, S.D.'s, C.R.'s and F values. The difference between the means of the high creative and the low creative in their academic-achievement was found very highly significant, showing that both the groups differed on this variable. The high creative group surpasses their counter part in academic-achievement. Thus, the third hypothesis was acceptable and its corresponding objective was achieved.

The fourth hypothesis was "The adjustment, vocational interests and academic-achievement of high creative low creative students do not differ significantly on the basis of sex." Its corresponding objective was "To compare high creative and low creative groups respectively on the basis of sex in relation to their adjustment, vocational interests and academic-achievement." The high creative male and the high creative female students did not differ on their emotional and educational adjustment. Both the groups were identical and similar in emotional and educational adjustments. Further, the high creative males were more adaptable than the high creative females in their social adjustment, as the mean differences between these two groups was significant. Thus, this hypothesis was partially accepted and partially rejected on adjustment variable. Again, the high creative on the basis of sex

differed significantly regarding scientific, artistic, persuassive, social and household vocational interests. The higher mean values on these vocational areas were in favour of the high creative females, showing their more interests in these vocational areas. Sex did not play any significant role in comparing the high creative students in regard to their academic -achievement. It meant that the difference between the high creative male and the high creative female was not significant, so far as academic-achievement is concerned. In this way, the fourth hypothesis in the case of the high creative students on different variables was partially acceptable and partially rejected, although the related objective was achieved.

The same hypothesis was further tested in the case of the low creative students on the basis of sex. The low creative students did not differ significantly on the basis of sex regarding the adjustment. So, here sex did not play any significant role. The low creative students of both the sexes, either male or female were homogeneous in their adjustment. Likewise, the mean values of male and female low creative group were found to be significant on artistic, social, household vocational areas. The higher mean values of female group indicated their keen and more interest in the artistic, social and household jobs. But as to other vocational areas scientific, executive, literary, commercial and persuasive both the groups did not differ. Similarly, the academic-achievement of the

low creative male and females differed significantly. Hence, the working hypothesis was not fully accepted.

The hypothesis No. 5 was "The adjustment, vocational interests and academic-achievement of high creative students and low creative students do not differ significantly on the basis of subject selection i.e. faculty," and its corresponding object was "To compare these two groups separately regarding their subject group (faculty) on different variables." Faculty did not play any significant role in comparing the high creative students regarding their adjustment. It meant that the high creative students of arts and science faculty did not differ in any problem of adjustment. So, on this variable in the case of the high creative the present hypothesis was accepted. Faculty showed its effect in selecting the vocations. The students of art group preferred literary, commercial and artistic vocations, while the students of science group showed their interest in scientific vocations. Thus, the difference between the high creative arts group and the high creative science group was significant in literary, scientific, artistic and commercial vocational areas, while this was not significant on executive, persuasive, constructive, agricultural and jobs related to household works. Hence, the working hypothesis regarding vocational interests of the high creative was not totally accepted. Further, this



hypothesis was totally rejected in the sense that the high creative students of arts and science groups differed significantly in their academic-achievement. The science group having high creativeness and skill showed better academic performance than their compeers.

Like the high creative group, the low creative group did not differ on the basis of faculty regarding its adjustment. The low creative students of arts faculty preferred literary, artistic, household and social vocations as compared with the science faculty. Further, so far as academic-achievement is concerned, the arts group had an edge over the science group, showing its better academic performance than the corresponding group. Therefore, in the case of the low creative the related hypothesis was accepted as to adjustment totally, and as to the academic achievement it was totally rejected while regarding vocational interests of the low creative group the hypothesis was partly rejected and partly accepted. The corresponding objective was also achieved in the light of the study.

The next and sixth hypothesis of this research work was "There are significant differences in the adjustment, vocational interests and academic-achievement when the high creative group and the low creative group compared longitudinally i.e. the same groups are compared on the same variables in two academic sessions." While the objective connected with this was "To compare these two

groups in two academic-sessions regarding their adjustment and vocational interests."

While comparing the adjustment of the high creative and the low creative students separately in two academic sessions, the result came into light was that the adjustment of these two groups remained the same even in the second session as it was in the first session. This showed that the students were stable in their adjustment problem. Here, the hypothesis No. 6 was rejected as the high creative and the low creative students did not show their different adjustment in two sessions. Further, the scoring of the high creative and the low creative on same vocational areas changed in the second session. It may be due to the fact that after their bitter and sweet experiences in any specific subject the students showed their true and real preference for the vocations, which were fit according to their abilities and interests. As in the case of the arts students the scoring in literary vocational area increased in the second session and decreased in scientific job. On the other hand, in the second session, the science students showed their preference for scientific job and the least preference for artistic and literary ones. Thus, the corresponding hypothesis was partially rejected and partially accepted in respect of the vocational interests. The objective was also achieved.

The seventh working hypothesis was that there is a correlation among adjustment, vocational interests and academic-achievement of high creative students and the related hypothesis was "To find out the correlation among adjustment, vocational interests and academic-achievement of high creative students." This hypothesis was accepted in the sense that there was a positive correlation between the educational adjustment and academic-achievement in the case of the high creative group. There was a high and positive correlation between academic-achievement and scientific vocational preference in the case of the high creative female group. Academic-achievement had a positive relationship with vocational preference of the high creative arts group in executive area; but the negative relationship with artistic vocational area, and in case of the high creative science group only commercial vocational interest had positive correlation with academic achievement. Further, while observing correlation between adjustment and vocational interests, it was clear that in the case of the high creative arts group adjustment had positive correlation with vocational preference in literary area and negative & high correlation with that of constructive area, so, hypothesis No. 7 here was again accepted. In the remaining case of correlation among academic-achievement, adjustment and vocational interests this hypothesis was rejected. The related objective was also achieved.

The eight and last hypothesis was "There is a correlation among the adjustment, vocational interests and academic-achievement of the low creative students" and the related objective was "To find out the correlation among adjustment, vocational interests and academic-achievement of the low creative students." The same hypothesis was accepted in the sense that academic-achievement was found to be positively correlated with social adjustment and negative correlated with educational adjustment in case of the low creative arts group. There was a positive and significant correlation between adjustment and persuasive vocational preference; adjustment and household vocational preference in the case of the low creative male group. Adjustment had negative but significant relationship with scientific vocational interest area and it had positive and high but significant correlation with the female group. In case of the low creative science students adjustment had negative and low significant correlation with commercial vocational preference and positive and significant correlation with vocational preference of agricultural and artistic areas. Thus, this related hypothesis is acceptable in the case of correlation between adjustment and vocational interests of the low creative group.

Hypothesis No. 8 was rejected in the case of all the groups of the low creative students, as there was no

significant correlation between different vocational preferences and academic-achievement. It is clear that both the variables are not interrelated. Interest predicts academic-achievement.

## 5.2 FINDING :

It is, therefore, logical to present here some findings deduced from scrupulous analysis and interpretation of data, which are as follows :

1. The high creative and the low creative did not differ significantly in their adjustment almost in all the areas.
2. Both the groups showed 'excellent' and 'good' emotional and educational adjustment.
3. The high creative females were more problematic than the low creative females in their social adjustment.
4. The high creative males were found to be significantly superior to the high creative females so far as their social adjustment is concerned.
5. There was no significant difference regarding the adjustment faced by the high creative and the low creative students under the faculty of arts and science.
6. In longitudinal comparison the high creative and the low creative students showed stable and constant adjustment in the second session, as it was in the first session.

7. The most important finding of the study was that there was a great deal in common between the vocational interests of the high creative and the low creative students. In both the groups scientific, executive and social were the three highest ranking interest areas, though the difference lay in their ranking order.
8. The high creative males had tended to give preference to social, scientific and executive jobs, while the high creative females preferred social, scientific, household and executive jobs. Thus, social, scientific and executive vocations were common in both the sexes of the high creative group.
9. In case of the low creative students sex played an eminent role in statistically differentiating this group regarding their artistic, social and household vocations. But the difference was in favour of the low creative females.
10. Females either of the high creative or of the low creative group showed their keen interest in jobs pertaining to household, scientific and social works.
11. The high creative students studying in arts faculty showed more interest in executive, literary and artistic jobs, while those of science faculty preferred scientific, executive and social vocations.

12. The low creative students of arts and science faculties differed significantly as far as their artistic, persuasive, social and household vocational interests were concerned. The arts group preferred these vocations in comparison with the science group.
13. In longitudinal comparison, the high creative students reflected a pattern of change in their interests regarding literary, scientific, executive and artistic jobs.
14. The low creative students specially of arts and science groups differed significantly in their longitudinal comparison regarding almost in all vocational interest areas except literary, commercial and artistic.
15. The high creative students surpassed their counterparts in academic-achievement.
16. There was no significant difference in the academic achievement of the high creative students on the basis of sex.
17. The low creative females were superior to the low creative males in their academic performances.
18. Faculty played a significant role in differentiating the high creative and the low creative separately in regard to academic-achievement. The students of science faculty had an edge over those of the arts faculty in their academic-performance.

19. It was found that academic - achievement had positive and significant correlation with educational adjustment of the high creative students of the arts group, while for the low creative students of the arts group correlation of academic-achievement along with social adjustment was positive and with educational adjustment was negative but significant.
20. Significant correlations between adjustment and different vocational areas for the low creative male students were as reported by persuasive vocational interest .54, household vocational interest .45; for the low creative female students by scientific vocational interest -.70, household vocational interest .74; for the high creative arts students by literary vocational interest .69, constructive vocational interests -.77; for the high creative science students by literary vocational interest -.51 and for the low creative science students by artistic vocational interest .52, commercial vocational interest -.46, and agricultural vocational interest .54.
21. Academic-achievement had positive and high correlation with the preference in scientific vocational interest for the high creative male students; positive correlation with the preference



of executive vocational interest and negative correlation with artistic vocational interest for the high creative arts students and positive correlation with the preference of commercial vocational interest for the high creative science students.

### 5.3 RECOMMENDATIONS :

It is not possible for nations in this age of science and technology, to depend solely upon quality of man power as the complex society of tomorrow would need talented and creative persons to cope with the vital problems. Identification of and nurturing the creatives has been the out come of two major world trends; to explore natural resources through best of the human resources in diverse areas of human activity such as medicine, engineering, agriculture etc., and to cultivate an aesthetic climate through talented products such as painting, music, poetry and the like to nullify the effects of the stress and strains of the highly complex technology. For these reasons identification of and nurturing the creative has remained a major concern of the world's problem. So, education for the creative children is one of the important and current problems to which educators, administrators have to administer themselves. In a national system of education, provision for the education of the creative has to be made carefully so that

the creative children may not feel frustrated in the normal class room on account of the want of proper stimulation.

Good and rich school programme will always help the creative to utilise their abilities and intelligence in a proper way. There must be increase in the counselling and guidance activities in school for the creative children. They must be engaged in additional reading and extra- assignments.. The creative students should be allowed to participate in large extra-curricular activities such as science clubs, student government, hobby clubs, general knowledge competitions and school particulars. They should be expected to give high results in school performance. Creative children should be allowed to get themselves enrolled in nearby colleges and universities for advanced courses in a subject they are interested in. They should be allowed to participate in such activities that encourage and initiate the independence and creativity. Provision should be made for the extra courses for the creative students. It is evident that the environment in which a creative student will live, should be objective and stimulating, it should enable him to think and find his anchors in reality.

Parents as well as teachers have heavy responsibilities towards the creative children. They should encourage them. They should serve as their friends, guides and philosophers, Parents and teachers

should help the creative children to discover their potentialities. Quite often parents are not aware of creative abilities of their children. While some parents of the creative adolescents have reported that their children are of average ability level, many parents of the average children consider their children to be of very high and superior ability. It appears that due to false notions about the abilities of their children, not much difference in the treatment of the high creative and low creative can be expected and made. Parents as well as teachers must reduce emotional disturbances between themselves and the creative children by understanding them. They have to establish creative relationship with them. They should stimulate their minds. Emphasis should be given to desirability of co-operation between the teachers and the parents of the creative. There must be special arrangement for school programme for the creative children. The advantages of special classes should be conferred upon the creative.

Human traits distribute themselves among people in such a way that a few individuals are found at the extreme of any distribution curve for one or another of the respective traits of the members of a community. Although most persons resemble the average of the group in many characteristics, there are also those who deviate from the average in certain traits. As these deviations create

certain problems of adjustment for those who may be denied participation in the activities common to the majority of other persons. Such persons need special attention of the teachers as well as the guidance workers. The problems of the high creative multiply in the home as he passes through the elementary grades to the higher grade. Since his progress in the school is rapid in comparison with the low creative, he begins earlier to demand the privileges that parents generally consider to be for ahead of his age. Out side, he wishes to be engaged in social activities of the holder people and his compeers, as it makes him conscious of what to do and what not to do.

False notions of the parents about the abilities of their children make the children poorly adjusted; if proper attention is not paid to them. Hence, parents need help in developing an interest in the significance of their children's degree of mental ability. In the light of the limited mental capacities the child possesses, parents should be stimulated to do for the child whatever is best for him. It should again, be realised by the parent of the creative students that their children may need more help from them than the low creative ones. Poorly adjusted children can succeed in school and even in life, if they are allowed only as much as they can pick up. If their interest is stimulated, and if they are given a chance to attain even a little success, they can be led to overcome many of the simple obstructions that they seem unable to comprehend.

Teachers and guidance workers must also take into consideration a few suggestions. First, the learner adjusts himself actively in the environment rather passively. Secondly, adjustment does not mean any unhealthy twisting of one's personality. It refers to healthy and energetic participation in group activities, avoiding any self-deception in the adjustment. Thirdly, adjustment is essentially a process of re-learning. Fourthly, even the youngest child is already a personality. Every child has some previous experiences through which he has fashioned particular habits or devices of adjustment, which serve him more or less usefully. If these aforesaid points are clearly understood along with their implications, the task of the teachers and guidance workers becomes easier.

In addition to this, attention should also be paid to the following points :

- a. The high creative and the low creative have shown less variability and homogeneity in the fields of emotional and educational adjustments. So, group guidance can be useful to them in this field.
- b. The high creative females and the low creative females can profit more by group guidance on the problems connected with emotional and educational adjustments due to homogeneity, but they need individual care and attention in the problem concerned with the social adjustment.

- c. Due to less variability and homogeneity in the field of social and emotional adjustment, the high creative and the low creative students of arts group are more teachable here and can profit more from group guidance programme, otherwise, they need individual guidance in the problem related to educational adjustment.
- d. The high creative and the low creative students of the science group need group guidance on all the problems connected with educational, emotional and social adjustments.

The task of guiding the vocational choice of the school students is often difficult except in the case of the high creative. Since, the high creative can train themselves to a high degree of performance in most activities in which they are significantly interested. Selection of a vocation is based largely upon the interest of the individual himself. But in the case of the low creative, the situation is often difficult. The low creative often feel that vocational limits have set for them, and that, except for the high creative, such occupational opportunities that do not represent real service, may be artificially created by a sympathetic society in order to meet their needs.

Boys and girls begin to show concern about possible vocational choices and goals when they attain maturity . There are two reasons for this, first,

interests start developing with the setting in of adolescence; secondly, most of the advancing nations like India also have diversified courses of study with the commencement of the period of adolescence. But making a vocational choice is still a difficult problem for adolescents whose educational opportunities have been limited to simple class room techniques of the traditional type. Their knowledge of the world of work is gained through unsystematic studies and observations derived from business establishments about them and other kinds of haphazard opportunities for learning. Out of such meagre knowledge and experiences they are expected to make choices from the multitude of jobs and careers available in a complex society. Vocational interests of the student depend upon knowledge, attitudes, values and environmental influences. Lack of awareness of personal characteristics and limited experiences combine to produce a confused interest-configuration for many boys and girls. So the school has the responsibility to assist students who are beset with vocational problems.

Of course, all the school children of the various groups of intelligence should be allowed further courses of study in line with their vocational interests. Still, they should be tested first for the right aptitudes. Moreover, they should be provided with full occupational information before they are actually allowed

to join any course of specialization. This will broaden their vision about the lines of specialization they have chosen, and will avoid a waste of their energies, if the courses do not suit them in the light of their capacities. The teachers and guidance workers can impart information about the occupation in a variety of ways according to the current demand of the time as an integral part of each study unit in any phase of education. These methods can possibly be the following :

- a. Vocational literature connected with current and widening spectrum of vocation can be provided by the libraries.
- b. The teachers can point out vocational possibilities with all possible details.
- c. Expert and experienced representatives of different vocations related to their interests can be invited to discuss the related aspects.
- d. Field trips offer opportunities for observation of the people as they work at various jobs.
- e. Movies and film trips showing application of skills and knowledge can be valuable part of occupational information programmes.
- f. There can be a provision to organise a meeting of parents and teachers in school campuses where short conversation and discussion about guidance, vocational information and adjustment of students should be made.



Before the actual entry in the courses of specialization, school children must be allowed to have a clear impression of themselves, if their interests are to be related to potential achievement. Adequacy of an individual student's knowledge of himself in terms of a broad array of function determines whether or not interests are realistic and can be achieved. The success of all the programme depends ultimately on the efficiency of the teachers and guidance workers. Their knowledge of subject matter and methodology of teaching should be entirely based on the latest information and fruitful resources. Similarly, the efficiency of the guidance workers is not to be doubted. All the programmes of the group and the individual guidance should be organised under their expert supervision and guidance.

In family and schools, the academic-achievement of the students should be appreciated by parents and teachers and not the efforts putting. The teachers should motivate the students so that they can make efforts more in gaining better marks than previous marks.

#### **5.4 EDUCATIONAL IMPLICATIONS :**

1. The present study will be useful to parents, teachers, administrators and guidance & counsellors, workers to identity the high creative and the low creative students and then to teach and guide them according to their capacities and aptitudes.

2. This study will help the guidance workers in discovering the suitability of the students' personality and making up for his educational and vocational choice. Secondly, this study will identify those students whose personality characteristics are blocking the development of their potentialities.
3. This study will enable the guidance workers to prepare certain effective plans of researches in view of the various potentialities of the high creative and the low creative students.
4. This study will be of immense value to students in selecting the specific course after XII class in sense at least that it is after this class that the student is join the diversified and specific course.
5. This study will broaden the vision of students about the lines they have chosen, and will avoid a waste of energies, if the courses do not suit them in the light of their capacities.
6. Teachers can be given adequate knowledge and experiences in guidance and counselling services by providing the subject in their pre-school training programme or by giving orientation courses and in-service training programme.
7. Specialist teachers can be appointed to deal with the problems of this high creative in some centres.

### 5.5 LIMITATIONS :

1. Due to paucity of time, the study was restricted to XI year class students of different colleges of Moradabad District only.
2. The number of students was small. A study with much bigger sample comprising of sufficient number of students would have added to the creditability of the findings and implications of this study.
3. Obviously, the study suffered from all the limitations which its tools might have been suffering from.
4. In this study only three aspects of the adjustment, namely, emotional, social and educational were considered. This would have given a better results, had more aspects of adjustment been considered.
5. This study was conducted only on urban students.
6. The adjustment of the high creative and the low creative students was measured only by adjustment inventory. The study could have been made better, if the researcher had considered teacher's rating, questionnaire for home background along with adjustment inventory.

### 5.6 SUGGESTIONS FOR FURTHER RESEARCH :

1. The present study is restricted only upto XI class students. The further study can be spread horizontally and vertically. It can be repeated on primary and degree levels also.

2. The study can be repeated by taking into consideration more adjustment areas. Home background can be investigated with respect to the awareness of creativeness and certain developmental aspects of children. The socio-economic conditions of home and educational facilities available in it could have made the study at the more beneficial.
3. The same project can be done by dividing the high creative and the low creative students into rural and urban groups.
4. The same study can be repeated by comparing the high creative & the low creative of Government and Private Inter Colleges.

A few topics for further and related research work are suggested below :

1. A comparative study of adjustment, personality values and vocational interests of the high creative and the low creative students.
2. The effect of socio-economic status on the curricular and vocational choices of the high creative and the low creative students.
3. A study of some factors underlying scholastic performance of the high creative and the low creative students.
4. A study of the high creative students in relation to their personal problems, creativity, adjustment, traits of personality and vocational interests.
5. Role of creativity as a motive for vocational interests of the high creative and the low creative students.

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## S U M M A R Y

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## SUMMARY

### A COMPARATIVE STUDY OF HIGH CREATIVE AND LOW CREATIVE STUDENTS IN RELATION TO THEIR ADJUSTMENT, VOCATIONAL INTERESTS AND ACADEMIC ACHIEVEMENT.

NAME OF INVESTIGATOR : KM.SHUBHA BANSAL

NAME OF THE SUPERVISOR : DR.J.L.VERMA

Creative children with wide range of intellect and talent, are an asset to any society. The progress that a nation can make, depends not only upon the talented persons, it has, but also, upon the opportunities and faculty facilities given to them in their respective fields. Therefore, it becomes the duty of society to give such creative persons the consideration and special facilities they deserve. Creative children, if properly educated, constitute a rich man-power. By their abilities and skills they constitute an additional asset to the society. In an age of Industrialisation, Technology and Science a creative child can be a source of promise to the society. An economy in a society can get a boost from the gifts of their intellectual capacities. If a creative child is ignored and not nurtured in a society, it will lose a creative adult, which is a serious loss not only to the country but also to human civilization. Therefore, the importance of educating and nuturing the creative ones can not be neglected.

**OBJECTIVES :**

- (1) To identify high creative and low creative students from the sample by the creativity test.
- (2) To find out whether high creative and low creative differ significantly on the basis of their adjustment.
- (3) To find out whether high creative and low creative differ significantly on their vocational interests.
- (4) To find out whether high creative and low creative differ significantly on their academic-achievement.
- (5) To compare high creative and low creative groups respectively on the basis of sex in relation to their adjustment, vocational interests and academic-achievement.
- (6) To compare these two groups respectively regarding their subject group (faculty) on different variables.
- (7) To compare these two groups in two academic sessions regarding their adjustment, vocational interests.
- (8) To find out the correlation among adjustment, vocational interests and academic-achievement of high creative students.
- (9) To find out the correlation among adjustment, vocational interests and academic-achievement of low creative students.
- (10) To offer further suggestions based on the findings of the study.

HYPOTHESES :-

- (1) There are significant differences between high creative and low creative students on the basis of their adjustment-emotional, social and educational.
- (2) There are significant differences between high creative and low creative students in relation to their vocational interests.
- (3) There are significant differences between high creative and low creative students on the basis of their academic-achievement.
- (4) The adjustment, vocational interests and academic-achievement of high creative students and low creative students do not differ significantly on the basis of sex.
- (5) The adjustment, vocational interests and academic-achievement of high creative students and low creative students do not differ significantly on the basis of subject selection i.e. faculty.
- (6) There are significant differences in the adjustment, vocational interests and academic-achievement when high creative group and low creative group are compared longitudinally i.e. the same groups are compared on the same variables in two academic sessions.
- (7) There is a correlation among the adjustment, vocational interests and academic-achievement of high creative students.
- (8) There is a correlation among the adjustment,



vocational interests and academic-achievement of low creative students.

**BASIC ASSUMPTIONS :**

- (1) Creativity Test of National Psychological Corporation provides a valid and reliable measure for creativity.
- (2) Adjustment Inventory for school students is a valid and reliable measure of adjustment.
- (3) Vocational interests exist in a lesser or greater degree in all human beings which can be recorded by vocational Interest Record. It is a more valid and reliable test. It measures vocational interests of students and enables him to select such courses and subject for further study and for job selection as are according to their preferred vocations.
- (4) Academic performance of students in annual examinations, whether they conducted by U.P. Board or locally by the schools, is a reliable indication of students' academic-achievement.

**TOOLS USED :**

- (1) Creativity Test by Dr. B. Mehdi.
- (2) Adjustment Inventory for School Students by Dr. A.K.P. Sinha & Dr. R.P. Singh.
- (3) Vocational Interest Record by Dr. S.P. Kulshrestha.
- (4) Achievement test- The percentage of total marks of

high school examination of the students of both the groups has been taken as a measure of academic-achievement.

**METHOD :**

The Normative Survey Method was employed for this research work, since the purpose was to compare the high creative with the low creative group on certain characteristics.

**SAMPLE :**

The sample for the present study consisted 528 XI class students of arts and science faculty from different colleges of Moradabad District. Both the sexes were included in the study. The sampling was random. Creativity test was used as a criteria for selecting the high creative and the low creative students. The number of students constituting the final sample for the study was 147 out of which 30 were the high creative and 117 low creative. For convenience's sake the researcher has equated the low creative students with the high creative students on the basis of sex, faculty and institutions they were studying in.

**FINDINGS :**

- (1) The high creative and the low creative did not differ significantly in their adjustment almost in all the areas.
- (2) Both the groups showed 'excellent' and 'good'

emotional and educational adjustment.

- (3) The high creative females were more problematic than the low creative females in their social adjustment.
- (4) The high creative males were found to be significantly superior to the high creative females so far as their social adjustment is concerned.
- (5) There was no significant difference regarding the adjustment faced by the high creative and the low creative students under the faculty of arts and science.
- (6) In longitudinal comparison the high creative and the low creative students showed stable and constant adjustment in the second session, as it was in the first session.
- (7) The most important finding of the study was that there was a great deal in common between the vocational interests of the high creative and the low creative students. In both the groups scientific, executive and social were the three highest ranking interest areas, though the difference lay in their ranking order.
- (8) The high creative males had tended to give preference to social, scientific and executive jobs, while the high creative females preferred social, scientific, household and executive jobs. Thus, social, scientific and executive vocations were common in both the sexes of the high creative group.

- (9) In case of the low creative students sex played an eminent role in statistically differentiating this group regarding their artistic, social and household vocations. But the difference was in favour of the low creative females.
- (10) Females either of the high creative or of the low creative group showed their keen interest in jobs pertaining to household, scientific and social works.
- (11) The high creative students studying in arts faculty showed more interest in executive, Literary and artistic jobs, while those of science faculty preferred scientific, executive and social vocations.
- (12) The low creative students of arts and science faculties differed significantly as far their artistic, persuasive, social and household vocational interests were concerned. The arts group preferred these vocations in comparison with the science group.
- (13) In longitudinal comparison, the high creative students reflected a pattern of change in their interests regarding Literary, Scientific, executive and artistic jobs.
- (14) The low creative students specially of arts and science groups differed significantly in their longitudinal comparison regarding almost in all vocational interest areas except Literary,

commercial and artistic.

- (15) The high creative students surpassed their counterparts in academic-achievement.
- (16) There was no significant difference in the academic-achievement of the high creative students on the basis of sex.
- (17) The low creative females were superior to the low creative males in their academic-achievement.
- (18) Faculty played a significant role in differentiating the high creative and the low creative separately in regard to academic-achievement. The students of science faculty had an edge over those of the arts faculty in their academic performance.
- (19) It was found that academic-achievement had positive and signifincant correlation with educational adjustment of the high creative students of the arts group, while for the low creative students of arts group correlation of academic-achievement along with social adjustment was postive and with educational adjustment was negative and significant.
- (20) Significant correlations between adjustment and different vocational areas for the low creative male students were as reported by persuasive vocational interest .54, household vocational interest .45, for the low creative female students by scientific vocational interest -.70, household vocational interest .74; for the high creative arts students by

Literary vocational interest .69, constructive vocational interest  $-.77$ ; for the high creative science students by literary vocational interest  $-.51$  and for the low creative science students by artistic vocational interest .52, commercial vocational interest  $-.46$  and agricultural vocational interest .54.

- (21) Academic-achievement had positive and high correlation with the preference in scientific vocational interest for the high creative male students; positive correlation with the preference of executive vocational interest and negative correlation with artistic vocational interest for the high creative arts students and positive correlation with the preference of commercial vocational interest for the high creative Science Students.

#### RECOMMENDATIONS :

- (1) Good and rich school programme will always help the creative to utilise their abilities and intelligence in a proper way.
- (2) There must be more counselling and guidance activities in school for the creative children.
- (3) They must be engaged in additional reading and extraassignment. They should be allowed to participate in large co-curricular activities such as science clubs, student government, hobby clubs,

general knowledge competitions and school particulars.

- (4) Parents as well as teachers have heavy responsibilities towards the high creative children. They should serve as their friends, guides and philosophers. Emphasis should be given to desirability of co-operation between the teachers and parents the high creative.
- (5) They should be allowed to participate in such activities that encourage and initiate the independence and creativity. The environment in which a high creative students will live, should be objective and stimulating, it should enable him to think and find his anchors in reality.
- (6) The school has the responsibility to assist students who are be set with vocational problems.
- (7) Students should be provided with full occupational information before they are actually allowed to join any course of specialization they have chosen.
- (8) Teachers and guidance workers can impart information about the occupation in variety of ways according to the current demand of the time as an integral part of each study unit in any phase of education.
- (9) Vocational Literature connected with the current and widening spectrum of vocation can be provided by the Libraries.
- (10) Expert and experienced representatives of different

vocations related to their interests can be invited to discuss the related aspects.

- (11) Field trips offer opportunities for observation of the people as they work at various jobs.
- (12) Movies and film trips showing application of skills and knowledge can be valuable part of occupational information programmes.
- (13) There must be a provision to organise a meeting of parents and teachers in school campuses where short conversation and discussion about guidance, vocational information and adjustment of students should be made.
- (14) All the programmes of the group and individual guidance should be organised the expert supervision and guidance of guidance workers.
- (15) In family and school, the academic-achievement of the students be appreciated by parents and teachers and not the efforts putting. The teachers should motivate the students so that they can make efforts more in gaining better marks than previous marks.
- (16) Teachers must be given adequate knowledge and experiences in guidance and counselling services by providing the subjects in their pre-school training programme or by giving orientation courses and in service training programmes.

#### SUGGESTIONS FOR FURTHER RESEARCH :

- (1) The present study is restricted only upto XI class.



The further study can be spread horizontally and vertically. It can be repeated on primary and degree levels also.

- (2) The study can be repeated by taking into consideration more adjustment areas. Home background can be investigated with respect to the awareness of creativeness and certain developmental aspects of children. The socio-economic conditions of home and educational facilities available in it could have made the study at the more beneficial.
- (3) The same project can be done by dividing the high creative and the low creative students into rural and urban groups.
- (4) This study can be repeated by comparing the high creative and the low creative of Government and Private Inter Colleges.

A few topics for further and related research work are suggested below :

- (1) A comparative study of adjustment, personality values and vocational interests of the high creative and the low creative students.
- (2) The effect of socio-economic status on the curricular and vocational choices of the high creative and the low creative students.
- (3) A study of some factors underlying scholastic performance of the high creative and the low creative students.
- (4) A study of the high creative students in relation to

their personal problems, intelligence , adjustment, traits of personality and vocational interests.

- (5) Role of creativity as a motive for vocational interests of the high creative and the low creative students.

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गोपनीय

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डॉ० बाकर मेहदी

प्रोफेसर ऑफ ऐजुकेशन

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### निर्देश

जीवन में नवीनता, मौलिकता एवं रचनात्मक योग्यता का बड़ा महत्व है। जीवन की प्रत्येक नई खोज मनुष्य के नये ढंग से सोचने की योग्यता का परिणाम है। संसार की बहुत सी ऐसी वस्तुएँ हैं जिन्हें नये-नये विचारों द्वारा अनोखी तथा उपयोगी बनाया जा सकता है। ऐसी योग्यता रखने वाले व्यक्तियों ने ही नई-नई खोजें तथा आविष्कार किये हैं। आगे के पृष्ठों पर कुछ ऐसी समस्याएँ दी गई हैं जिन्हें यदि आप विचारात्मक एवं सृजनात्मक ढंग से हल करने का प्रयत्न करेंगे तो आप बहुत से नवीन तथा रोचक उत्तर देने में सफल हो सकेंगे। आपको इन कार्यों के करने में बहुत आनन्द आयेगा।

1. ये कार्य दिन-प्रतिदिन की समस्याओं से सम्बंधित हैं; इनका कोई सही या गलत उत्तर नहीं है। देखना यह है कि आप कहाँ तक ऐसी नई एवं अनोखी बातें सोचते हैं जो आपके विचार में आपके साथी नहीं सोच सकते। वास्तव में विचित्र एवं नवीन उत्तर देने से ही यह पता लग सकेगा कि आप में वस्तुओं को नये ढंग से सोचने की कितनी योग्यता है; अतः जितने भी अधिक नये एवं रोचक विचार आयें लिखते जाइये चाहे वे असम्भव ही क्यों न मालूम होते हों।
2. इस पत्रिका में आपको चार प्रकार के कार्य करने के लिए दिए गए हैं। सुविधा के लिए प्रत्येक कार्य का अलग-अलग समय निश्चित है; जहाँ तक सम्भव हो शीघ्रता से उत्तर दीजिए। यदि आप किसी कार्य को निश्चित समय से पहले पूरा कर लेते हैं तो भी जब तक आपसे अगले कार्य के लिए न कहा जाए, आगे न बढ़ें; बल्कि उसी कार्य के बारे में शान्तिपूर्वक सोचते रहें और जो भी नया विचार आपके मन में आये, उसे भी लिख दें। अन्त में पाँच मिनट का समय और दिया जायेगा। यदि आपके मन में किसी भी प्रश्न के किसी भाग के बारे में कोई नवीन विचार आया है जिसे आप पहले नहीं लिख पाए थे, तो उसे इस समय में लिख सकते हैं।
3. प्रत्येक कार्य के हर भाग का उत्तर अवश्य दीजिए। जब आपसे कार्य आरम्भ करने को कहा जाय तो तुरंत शुरू कर दीजिए।

यदि आपको कोई बात पूछनी है तो इस समय पूछ लीजिए। यदि इस समय कोई कठिनाई नहीं है और बाद में कोई कठिनाई आए तो शान्तिपूर्वक अपने स्थान से हाथ उठाये ताकि आपकी कठिनाई दूर की जा सके।

Estd. : 1971

Phone : 63551

**National**  
PSYCHOLOGICAL CORPORATION  
4/230 KACHERI GHAT, AGRA - 282 004 (INDIA)

**कार्य : 1**

**यदि ऐसा हो जाये तो.....**

**निर्देश :-**

1. इस कार्य में नीचे तीन असम्भव बातें दी गयी हैं जो कि कभी सत्य नहीं हो सकतीं। आप केवल यह मान लें कि ऐ हो गया है। तब आप सोचें कि ऐसा हो जाने पर क्या परिणाम हो सकते हैं।
2. प्रश्नों का उत्तर देते समय अपने ध्यान और सोचने की शक्ति को पूरी तरह प्रयोग करने का प्रयत्न कीजिए और मिनट में आप जितने उत्तर दे सकते हैं, दीजिए। ऐसे उत्तर देने का प्रयत्न कीजिए जो आपके विचार में आपके किसी साथी ने न सोचे हों।
3. उत्तर छोटे-छोटे वाक्यों में देने का प्रयत्न कीजिए ताकि दिए हुए समय में आप अधिक से अधिक लिख सकें।
4. यदि रखिए आपको 15 मिनट में इस कार्य की तीनों समस्याओं के विषय में लिखना है जब पहले प्रश्न के विषय में कोई अन्तर समझ में न आए तो आप तुरन्त दूसरे प्रश्न को हल करना शुरू कर दीजिए। अगर बीच में या बाद में पहले प्रश्न के विषय में कोई नया उत्तर ध्यान में आए तो उसे भी पहले उत्तरों के साथ लिख दीजिए। आपके सुविधा के लिए हर 5 मिनट समाप्त होने पर आपको वता दिया जाएगा।
5. जब आपसे काम आरम्भ करने को कहा जाए तो तुरन्त शुरू कर दीजिए।

नीचे एक उदाहरण दिया जा रहा है जिससे स्पष्ट हो जाएगा कि आपको क्या करना है :-

**प्रश्न—** यदि पशु-पक्षी भी मनुष्य के समान बोलने लगें तो क्या होगा ?

**उत्तर—**(1) यह संसार एक विभिन्न प्रकार का संसार दिखायी देगा।

(2) पशुओं के राज्य में बहुत से नेता उत्पन्न होंगे।

(3) सम्भव है कि एक गधा हमारा नेता हो जाए।

(4) यह भी सम्भव है कि वह हमारा प्रधान-मन्त्री बन जाए।

(5) मनुष्य अपने पशु-मित्रों को अपना राजदार (विश्वस्त) बना ले।

और (6) पशु भी अपने भेद अपने मनुष्य-मित्रों से कह सकेंगे; आदि।

**समस्यायें :-**

1. यदि मनुष्य पक्षियों की भाँति उड़ने लगे तो क्या होगा ?

2. यदि आपके विद्यालय में पहिये लग जायें तो क्या होगा ?

3. यदि मनुष्य को खाने की आवश्यकता न रहे तो क्या होगा ?

2. कुर्सी और सीढ़ी (नसैनी).

3. हवा और पानी

कार्य : 4

## वस्तुओं को मनोरंजक तथा विचित्र बनाना

निर्देश :-

आपने घोड़े का खिलौना तो देखा ही होगा; अन्य जानवरों के भी खिलौने होते हैं जिनसे बच्चे बड़ी प्रसन्नता से खेलते हैं। साधारणतया ये खिलौने छोटे आकार के होते हैं ताकि बच्चे उनसे आसानी से खेल सकें। आप घोड़े के एक सादे खिलौने को ध्यान में रखिए और फिर नीचे आप उन अनोखे तथा मनोरंजक तरीकों को लिखिए जिनके द्वारा आप इस खिलौने में ऐसे परिवर्तन ला सकें जिनसे बच्चों को इस खिलौने से खेलने में अधिक आनन्द आने लगे। इस बात की परवाह मत कीजिए कि इस प्रकार के परिवर्तन पर क्या लागत आयेगी। आपको केवल यह सोचना है कि खिलौने को बच्चों के लिए किस तरह अधिक से अधिक मनोरंजक तथा विचित्र बनाया जा सकता है।

जब आपसे कार्य आरम्भ करने को कहा जाए तो तुरन्त कार्य आरम्भ कर दीजिए। आपको इस कार्य के लिए 6 मिनट का समय दिया जाएगा।

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# SCORING SHEET

TCW

ACTIVITY I			
	Fluency	Flexibility	Originality
Item 1.	.....	.....	.....
Item 2.	.....	.....	.....
Item 3.	.....	.....	.....
Total			

ACTIVITY II			
	Fluency	Flexibility	Originality
Item 1.	.....	.....	.....
Item 2.	.....	.....	.....
Item 3.	.....	.....	.....
Total			

ACTIVITY III			
	Fluency	Flexibility	Originality
Item 1.	.....	.....	.....
Item 2.	.....	.....	.....
Item 3.	.....	.....	.....
Total			

ACTIVITY IV			
	Fluency	Flexibility	Originality
Item 1.	.....	.....	.....

SCORE SUMMARY			
	Fluency	Flexibility	Originality
Activity I	.....	.....	.....
Activity II	.....	.....	.....
Activity III	.....	.....	.....
Activity IV	.....	.....	.....
Grand Total			

● See back page for further instructions regarding originality scoring.





गोपनीय

# विद्यालयी छात्रों के लिए समायोजन सूची (Adjustment Inventory for School Students) [ HINDI VERSION ]

*Constructed and Standardized by*

DR. A. K. P. SINHA  
Professor Emeritus  
Department of Psychology  
PATNA UNIVERSITY

DR. R. P. SINGH  
Reader in Education  
PATNA UNIVERSITY

निम्न सूचनायें परीक्षार्थी को भरनी हैं	
विद्यार्थी का नाम—	लड़का/लड़की
स्कूल का नाम—	
आयु—	कक्षा—
जिला—	दिनांक—

## निर्देश

आगे पन्नों पर तुम्हारे स्कूल से सम्बन्धित कुछ प्रश्न दिये हैं जिनके सामने 'हाँ' और 'नहीं' लिखा है। प्रत्येक प्रश्न को ध्यान से पढ़ो और यह निश्चय कर लो कि तुम किसी भी प्रश्न का उत्तर 'हाँ' के द्वारा देना चाहते हो या 'नहीं' के द्वारा। यदि 'हाँ' के द्वारा देना चाहते हो तो 'हाँ' को घेरो और यदि 'नहीं' के द्वारा तो 'नहीं' को घेरो। याद रहे कि तुम्हारा उत्तर किसी दूसरे व्यक्ति को नहीं बताया जायेगा। इसलिए बिना किसी संकोच भाव के सभी प्रश्नों के उत्तर दो। समय की पाबन्दी नहीं है, फिर भी यथाशीघ्र समाप्त करने का प्रयास करो।

Adjustment Area	Emotional (क)	Social (ख)	Educational (ग)
SCORES			

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- |   |     |      |
|---|-----|------|
| १ (क) क्या तुमको स्कूल में हमेशा किसी बात का डर लगा रहता है ?   | हाँ | नहीं |
| २ (ख) क्या तुम अपने सहपाठियों से मिलने से भागते हो ?  | हाँ | नहीं |
| ३ (ग) पढ़ी हुई चीज को क्या तुम जल्दी भूल जाते हो ?  | हाँ | नहीं |
| ४ (क) किसी सहपाठी से कुछ अनुचित बात अनजाने बोली जाती है तो क्या तुम तुरन्त क्रुद्ध हो जाते हो ?               | हाँ | नहीं |
| ५ (ख) क्या तुम लजालु स्वभाव के हो ?   | हाँ | नहीं |
| ६ (ग) क्या तुमको परीक्षा से डर लगता है ?  | हाँ | नहीं |
| ७ (क) किसी शिक्षक द्वारा किसी गलती के लिए डांटे जाने पर तुम चिन्तित रहते हो ?                                 | हाँ | नहीं |
| ८ (ख) क्या तुम क्लास में किसी चीज को नहीं समझने पर शिक्षक से उठकर प्रश्न पूछने में हिचकिचाते हो ?             | हाँ | नहीं |
| ९ (ग) क्या क्लास की पढ़ाई को समझने में तुम्हें कठिनाई होती है ?   | हाँ | नहीं |
| १० (क) क्या तुम अपने उन सहपाठियों से जिन्हें शिक्षक अधिक मानते हैं, ईर्ष्या करते हो ?                         | हाँ | नहीं |
| ११ (ख) क्या तुम शिक्षकों के बीच बेखटके जाते हो ?  | हाँ | नहीं |
| १२ (ग) क्या क्लास की पढ़ाई को तुम ठीक से नोट कर लेते हो ?   | हाँ | नहीं |
| १३ (क) क्या तुम, यह देखकर कि तुम्हारे बहुत से सहपाठी तुम से अच्छे हैं, द्वेष करने लगते हो ?                   | हाँ | नहीं |
| १४ (ख) क्या स्कूल में तुम्हें कभी-कभी ऐसा लगता है कि तुम्हारा कोई मित्र नहीं है ?                             | हाँ | नहीं |
| १५ (ग) क्या क्लास में पढ़ाई के समय तुम प्रायः ऊँघते हो ?  | हाँ | नहीं |
| १६ (क) कुछ विद्यार्थियों को आपस में बात करते देख कर क्या तुम्हें लगता है कि शायद तुम्हारी निन्दा कर रहे हैं ? | हाँ | नहीं |
| १७ (ख) क्या तुम आसानी से दोस्ती कर लेते हो ?  | हाँ | नहीं |
| १८ (ग) क्या तुम इस स्कूल के शिक्षकों की पढ़ाई से सन्तुष्ट रहते हो ?   | हाँ | नहीं |
| १९ (क) क्या तुम स्कूल के किसी कार्यक्रम में आगे नहीं आने पर दूसरों पर अपना क्रोध प्रकट करने लगते हो ?         | हाँ | नहीं |
| २० (ख) जब कुछ लड़के इकट्ठे होकर बात करते हैं तो क्या तुम भी बेखटके शामिल हो जाते हो ?                         | हाँ | नहीं |

११ (ग) क्या तुम ऐसा समझते हो कि शिक्षक तुम्हारी कठिनाई पर ध्यान देते हैं ?

१ (क) क्या तुम स्कूल में प्रायः उदास और शिथिल रहते हो ? हाँ नहीं

२ (ख) क्या तुम सहपाठियों से मिलकर एक साथ काम करना चाहते हो ? हाँ नहीं

४ (ग) क्या तुम अपनी पढ़ाई की प्रगति से सन्तुष्ट हो ? हाँ नहीं

५ (क) क्या तुमको ऐसा लगता है कि शिक्षक तुम्हारी अवहेलना करते हैं ? हाँ नहीं

६ (ख) क्या तुम क्लास में शिक्षक का ध्यान अपनी ओर आकर्षित करने की चेष्टा करते हो ? हाँ नहीं

७ (ग) क्या पढ़ना तुम्हारे लिए भार मालूम पड़ता है ? हाँ नहीं

८ (क) क्या जब कोई विद्यार्थी शिक्षक से तुम्हारी साधारण शिकायत की बात करता है तो तुम आवेश में आकर उसको हानि पहुँचाने का प्रयत्न करते रहते हो ? हाँ नहीं

९ (ख) क्या तुम प्रायः एकान्त में रहना पसन्द करते हो ? हाँ नहीं

१० (ग) क्या तुम्हारे शिक्षक पठन सम्बन्धी तुम्हारी कठिनाई को दूर करने के लिए हमेशा तत्पर रहते हैं ? हाँ नहीं

११ (क) क्या तुम अपने स्कूल से प्रायः असन्तुष्ट रहते हो ? हाँ नहीं

१२ (ख) क्या तुम अपने स्कूल के विद्यार्थियों से मेलजोल बढ़ाते रहते हो ? हाँ नहीं

१३ (ग) क्या तुम्हारे स्कूल के शिक्षक तुम्हारी प्रशंसा करते हैं ? हाँ नहीं

१४ (क) क्या तुम गलती करने पर भी सीनाजोरी करने पर तुल जाते हो ? हाँ नहीं

१५ (ग) क्या तुम क्लास में आगे की सीटों पर बैठना पसन्द नहीं करते हो ? हाँ नहीं

१६ (ग) क्या परीक्षा में प्रायः तुम कम अंक पाते हो ? हाँ नहीं

१७ (क) क्या जब शिक्षक तुमसे कोई प्रश्न पूछते हैं तो तुम्हारे मन में उनके प्रति द्वेष का भाव उत्पन्न हो जाता है ? हाँ नहीं

१८ (ख) क्या तुम्हारा अपने सहपाठियों से मेलजोल रहता है ? हाँ नहीं

१९ (ग) क्या तुम यह चाहते हो कि स्कूल में और अधिक छुट्टियाँ रहें ? हाँ नहीं

२० (क) क्या तुम अपने सहपाठी द्वारा किए गए कुछ हंसी-मजाक की बात पर भी तुरन्त तमतमा जाते हो ? हाँ नहीं

४१ (ख) क्या स्कूल की गोष्ठियों में तुम खुलकर भाग लेते हो ?	हाँ	नहीं
४२ (ग) क्या तुम छुट्टी के पहले ही कभी-कभी स्कूल से चले जाते हो ?	हाँ	नहीं
४३ (क) क्या तुम अपने सहपाठी से प्रायः झगड़ लेते हो ?	हाँ	नहीं
४४ (ख) क्या तुम स्कूल के खेल-कूद में भाग लेते हो ?	हाँ	नहीं
४५ (ग) क्या तुम्हारे कुछ शिक्षक तुम्हें प्रायः पढ़ाई के लिए डांटते रहते हैं ?	हाँ	नहीं
४६ (क) क्या तुमको प्रायः स्कूल में दूसरों के प्रति शक बना रहता है ?	हाँ	नहीं
४७ (ख) क्या तुम अपने से ऊँचे क्लास के छात्रों से बातचीत करने में लजाते हो ?	हाँ	नहीं
४८ (ग) क्या तुम अपने शिक्षक को आदर की दृष्टि से देखते हो ?	हाँ	नहीं
४९ (क) जिस साथी से तुम्हारी पटती नहीं है उसके द्वारा कही गयी अच्छी बात पर भी क्या तुम उद्‌डता दिखाते हो ?	हाँ	नहीं
५० (ख) क्या इस स्कूल में तुम्हारे कुछ घनिष्ठ मित्र हैं ?	हाँ	नहीं
५१ (ग) क्या क्लास में तुम्हारा ध्यान पढ़ाई की ओर लगा रहता है ?	हाँ	नहीं
५२ (क) क्या परीक्षा में कम अंक आने पर तुम में शिक्षक के प्रति द्वेष का भाव उत्पन्न हो जाता है ?	हाँ	नहीं
५३ (ख) क्या तुम अपने सहपाठियों की हर प्रकार की सहायता करने को तत्पर रहते हो ?	हाँ	नहीं
५४ (ग) क्या तुम स्कूल के पुस्तकालय से किताब तथा पत्र-पत्रिकाएँ लेकर पढ़ते हो ?	हाँ	नहीं
५५ (क) क्या तुम अपने से ऊपर क्लास के छात्रों से मिलने में प्रायः डरते हो ?	हाँ	नहीं
५६ (ख) क्या तुम स्कूल के अन्य विद्यार्थियों को चिढ़ाकर मजा लेते हो ?	हाँ	नहीं
५७ (ग) क्या तुम वाद-विवाद में भाग लेते हो ?	हाँ	नहीं
५८ (क) क्या अपने से नीचे क्लास के छात्रों से मिलने में तुम्हें ग्लानि होती है ?	हाँ	नहीं
५९ (ख) क्या तुम अपनी नोट-बुक या पुस्तक अपने सहपाठियों के माँगने पर सहर्ष देते हो ?	हाँ	नहीं
६० (ग) क्या तुम्हें शिक्षा सम्बन्धी बातों में दिलचस्पी रहती है ?	हाँ	नहीं



# व्यावसायिक रुचि प्रपत्र (Vocational Interest Record)

डॉ. एस. पी. कुलश्रेष्ठ (देहरादून)

T.M. No. 458715

कृपया निम्न विवरण दीजिये :-

नाम \_\_\_\_\_  
आयु \_\_\_\_\_ लिंग \_\_\_\_\_ कक्षा \_\_\_\_\_  
विद्यालय \_\_\_\_\_  
पिता का व्यवसाय \_\_\_\_\_ मासिक आय \_\_\_\_\_  
ग्रामीण/शहरी \_\_\_\_\_ दिनांक \_\_\_\_\_

## निर्देश

- इस प्रपत्र का मुख्य उद्देश्य आपकी व्यावसायिक पसन्द जानना है जिससे कि आपका व्यावसायिक निर्देशन किया जा सके ।
- इस प्रपत्र के प्रत्येक खाने में दो व्यवसाय अंकित हैं । वेतन, प्रतिष्ठा एवं उसके भविष्य को दृष्टिगत रखते हुए आप प्रत्येक खाने में अंकित दोनों व्यवसायों में से अपनी व्यावसायिक रुचि के सम्बन्ध में अपने विचार प्रकट कर सकते हैं । आपको निम्न भाँति अपनी व्यावसायिक पसन्द अंकित करनी है :  
[क] यदि आप किसी खाने का पहला व्यवसाय पसन्द करते हैं तो नं. 1 के सामने वाले खाने में सही का चिन्ह (✓) अंकित कीजिये । जैसे—  
[ख] यदि आप खाने का दूसरा व्यवसाय पसन्द करते हैं तो नं. 2 के सामने वाले खाने में सही का चिन्ह (✓) अंकित कीजिये । जैसे—  
[ग] यदि आप खाने के दोनों व्यवसायों को पसन्द करते हैं तो नं. 1 व 2 दोनों के सामने वाले खानों में सही का चिन्ह (✓) अंकित कीजिये । जैसे—  
[घ] यदि आप खाने के दोनों व्यवसायों को नापसन्द करते हैं तो नं. 1 व 2 दोनों के सामने वाले खानों में क्रौस का चिन्ह (X) अंकित कीजिये । जैसे—  
इस प्रकार प्रत्येक खाने के व्यवसायों के सम्बन्ध में आपको अपनी रुचि/अरुचि व्यक्त करनी है तथा कोई खाना खाली नहीं छोड़ना है । यदि इस विषय में कोई शंका हो तो पूछ लीजिये ।
- इस प्रपत्र के लिये यद्यपि कोई समय-सीमा नहीं है फिर भी शीघ्रता से उत्तर दीजियेगा । इसे करने में अधिकांशतः 7 से 10 मिनट का समय लगता है ।
- समस्त खानों में अपनी व्यावसायिक पसन्द अंकित करने के पश्चात् यह प्रपत्र वापिस कर दीजियेगा ।

✓ ☐ 1 वैज्ञानिक  
पत्रकार 2 ☐

☐ 1 शिक्षक  
जज 2 ☐ ✓

✓ ☐ 1 वकील  
डॉक्टर 2 ☐ ✓

X ☐ 1 डॉक्टर  
वकील 2 ☐ X

अच्छा, अब प्रपत्र खोलिये और कार्य शुरू कीजिये !

Estd : 1971

Phone : 364926

## NATIONAL PSYCHOLOGICAL CORPORATION

4/230, Kacheri Ghat, AGRA – 282 004 (INDIA)

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# व्यावसायिक

	L 1	SC 1	E 1	C 1	CO 1
L 2	<input type="checkbox"/> 1 पत्रिका सम्पादक	<input type="checkbox"/> 1 वैज्ञानिक	<input type="checkbox"/> 1 सिटी मजिस्ट्रेट	<input type="checkbox"/> 1 टाइपिस्ट	<input type="checkbox"/> 1 कागज के फूल बनाने वाला
SC 2	इतिहासकार 2 <input type="checkbox"/>	काव्यकार 2 <input type="checkbox"/>	उपन्यासकार 2 <input type="checkbox"/>	ग्रंथ-अनुवादक 2 <input type="checkbox"/>	कविता संग्रह करने वाला 2 <input type="checkbox"/>
E 2	<input type="checkbox"/> 1 भाषा-अनुवादक	<input type="checkbox"/> 1 डाक्टर	<input type="checkbox"/> 1 न्यायाधीश	<input type="checkbox"/> 1 प्राइवेट सेक्रेटरी	<input type="checkbox"/> 1 लुहार
C 2	मैकेनिकल-इंजीनियर 2 <input type="checkbox"/>	रासायनिक इंजीनियर 2 <input type="checkbox"/>	पशु-चिकित्सक 2 <input type="checkbox"/>	टीका लगाने वाला 2 <input type="checkbox"/>	कैमिस्ट 2 <input type="checkbox"/>
CO 2	<input type="checkbox"/> 1 समालोचक	<input type="checkbox"/> 1 सिविल इंजीनियर	<input type="checkbox"/> 1 पुलिस सुपरिण्टेण्डेंट	<input type="checkbox"/> 1 दुकानदार	<input type="checkbox"/> 1 वर्कशॉप
A 2	कारखाने का सुपरिण्टेण्डेंट 2 <input type="checkbox"/>	ऑनरेरी मजिस्ट्रेट 2 <input type="checkbox"/>	सेना ऑफीसर 2 <input type="checkbox"/>	जहाज कप्तान 2 <input type="checkbox"/>	डिप्टी-कलेक्टर 2 <input type="checkbox"/>
AG 2	<input type="checkbox"/> 1 पत्रकार	<input type="checkbox"/> 1 स्वास्थ्य अधिकारी	<input type="checkbox"/> 1 होटल का मैनेजर	<input type="checkbox"/> 1 कम्पनी में एकाउंटेंट	<input type="checkbox"/> 1 कलई करने वाला
P 2	स्टेनो 2 <input type="checkbox"/>	प्रूफ-रीडर. 2 <input type="checkbox"/>	ड्राफ्टमैन 2 <input type="checkbox"/>	आयकर विभाग वाला 2 <input type="checkbox"/>	टाइप सिखाने वाले 2 <input type="checkbox"/>
S 2	<input type="checkbox"/> 1 कवि	<input type="checkbox"/> 1 कम्पाउण्डर	<input type="checkbox"/> 1 राज्यपाल	<input type="checkbox"/> 1 टिकटें बाँटने वाला	<input type="checkbox"/> 1 रेडियो मैकेनिक
H 2	लकड़ी के खिलौने बनाने वाला 2 <input type="checkbox"/>	सूत्र कातने वाला द <input type="checkbox"/>	वैलिंग करने वाला 2 <input type="checkbox"/>	सुनार 2 <input type="checkbox"/>	बढ़ई 2 <input type="checkbox"/>
	<input type="checkbox"/> 1 साहित्यिक लेखक	<input type="checkbox"/> 1 ज्योतिषी	<input type="checkbox"/> 1 स्कूल इंस्पेक्टर	<input type="checkbox"/> 1 मुनीम	<input type="checkbox"/> 1 रंगरेज
	गायक 2 <input type="checkbox"/>	रेडियो सिंगर द <input type="checkbox"/>	संगीत के यंत्र बनाने वाला 2 <input type="checkbox"/>	बाँमुरी वादक 2 <input type="checkbox"/>	संगीत निर्देशक 2 <input type="checkbox"/>
	<input type="checkbox"/> 1 भाषा विज्ञान विशेषज्ञ	<input type="checkbox"/> 1 परमाणु वैज्ञानिक	<input type="checkbox"/> 1 शिक्षक संचालक	<input type="checkbox"/> 1 शौर्टहैंड शिक्षक	<input type="checkbox"/> 1 रचनात्मक विषयों का अध्यापक
	कृषि शिक्षक 2 <input type="checkbox"/>	पौध तैयार करने वाला 2 <input type="checkbox"/>	खाद निर्माण कर्ता 2 <input type="checkbox"/>	सिंचाई करने वाला 2 <input type="checkbox"/>	अच्छी नस्ल के पशु तैयार करने वाला 2 <input type="checkbox"/>
	<input type="checkbox"/> 1 नाटककार	<input type="checkbox"/> 1 थ दवा बेचने वाली फर्मों का प्रतिनिधि	<input type="checkbox"/> 1 जिलाधीश	<input type="checkbox"/> 1 वाणिज्य शिक्षक	<input type="checkbox"/> 1 जिल्दसाज
	विज्ञापन मैनेजर 2 <input type="checkbox"/>	प्रचारक 2 <input type="checkbox"/>	चुनाव लड़ने वाला 2 <input type="checkbox"/>	समाज में चेतना उत्पन्न करने वाला 2 <input type="checkbox"/>	बीमा कम्पनी का ऑफीसर 2 <input type="checkbox"/>
	<input type="checkbox"/> 1 महाकाव्य रचयिता	<input type="checkbox"/> 1 वनस्पति-शास्त्रज्ञ	<input type="checkbox"/> 1 प्रिंसीपल	<input type="checkbox"/> 1 दुकान पर लेन-देन का हिसाब करने वाला	<input type="checkbox"/> 1 कपड़े धोने वाला
	मुफ्त सेवा करने वाला डॉक्टर 2 <input type="checkbox"/>	धर्मशाला व प्याऊ बनवाने वाला 2 <input type="checkbox"/>	समाज-सेवक 2 <input type="checkbox"/>	गरीब बच्चों को छात्रवृत्तियाँ देने वाला 2 <input type="checkbox"/>	स्वयं सेवक 2 <input type="checkbox"/>
	<input type="checkbox"/> 1 भाषा अध्यापक	<input type="checkbox"/> 1 विज्ञान शिक्षक	<input type="checkbox"/> 1 तहसीलदार	<input type="checkbox"/> 1 खजांची	<input type="checkbox"/> 1 वर्कशॉप में मिस्त्री
	पाक विद्या विशेषज्ञ 2 <input type="checkbox"/>	घर में कढ़ाई करने वाला 2 <input type="checkbox"/>	घर में सिलाई करने वाला 2 <input type="checkbox"/>	गृह विज्ञान में उच्च डिग्री लेने वाला 2 <input type="checkbox"/>	रोगी परिचर्या में रुचि लेने वाला 2 <input type="checkbox"/>
	योग L 1 =	योग SC 1 =	योग E 1 =	योग C 1 =	योग CO 1 =

# रुचि प्रपत्र

A 1	AG 1	P 1	S 1	H 1	
1 संगीतकार □	□ 1 बाग लगाने वाला नाटक का मूल्यांकन करने वाला 2 □	□ 1 राजपूत साहित्यिक कार्यकर्ता 2 □	□ 1 स्काउट कथाकार 2 □	□ 1 गृह विज्ञान शिक्षक आलोचक 2 □	योग L 2 =
□ 1 पेण्टर	□ 1 किसान ओवर-सियर 2 □	□ 1 वकील रासायनिक पदार्थों के उत्पादक 2 □	□ 1 ग्राम सेवक वैज्ञानिक यंत्र निर्माता 2 □	□ 1 गृह व्यवस्थापक बिजली इन्जीनियर 2 □	योग SC 2 =
फार्टून बनाने वाला फीसर 2 □	□ 1 पशु-पालक राष्ट्रपति 2 □	□ 1 बीमा एजेंट उपराज्यपाल 2 □	□ 1 समाज सुधारक अस्पताल का सुपरिटेण्डेण्ट 2 □	□ 1 घर का बजट बनाने वाला नगर का मेयर 2 □	योग E 2 =
ललित कला शिक्षक □	□ 1 एग्रीकल्चर इंस्पेक्टर सेल्समैन 2 □	□ 1 राजनीतिज्ञ बहीखाते का काम करने वाला 2 □	□ 1 रैंडक्रॉस कार्यकर्ता व्यापारिक व्यवस्थापक 2 □	□ 1 गृह-कला प्रशिक्षक कम्पनी में पत्र-व्यवहार करने वाला 2 □	योग C 2=
1 चित्रकार ने ]	□ 1 बीज भण्डार अधिकारी बुनाई करने वाला 2 □	□ 1 धर्म प्रचारक जिल्दसाज 2 □	□ 1 अकाल पीड़ित सहायक लघु उद्योग भण्डार लगाने वाला 2 □	□ 1 घर राजाने वाला मिट्टी के खिलौने बनाने वाला 2 □	योग CO 2=
1 फोटोग्राफर कार 2 □	□ 1 भूमि विशेषज्ञ वस्त्र डिजाइन कर्ता 2 □	□ 1 ग्राम सरपंच स्टेज डाइरेक्टर 2 □	□ 1 गूँगे बहरों के स्कूल खोलने वाला कलाकार 2 □	□ 1 बच्चों का पालन करने वाला कला आलोचक 2 □	योग A 2=
1 नृत्यकार त्सक 2 □	□ 1 खाद विशेषज्ञ बागवानी करने वाला 2 □	□ 1 शिक्षक कृषि साहित्य पढ़ने वाला 2 □	□ 1 प्राथमिक चिकित्सक डेयरी संचालक 2 □	□ 1 घर में फलों के मुरब्बे बनाने वाला कृषक सहकारी संस्थापन का कार्यकर्ता 2 □	योग AG 2=
1 मूर्तिकार खक 2 □	□ 1 कृषि अनुसंधानकर्ता विभिन्न वस्तुओं के ऑर्डर बुक करने वाला 2 □	□ 1 ट्रिस्ट गाइड व्यवसाय सलाहकार 2 □	□ 1 कल्याण समिति कार्यकर्ता राजनीतिक वक्ता 2 □	□ 1 रोगी की देखभाल करने वाला नये विचारों का प्रचारक 2 □	योग P 2 =
1 ग्लमी गायक 5 2 □	□ 1 ट्रेक्टर चालक देश रक्षा के लिए सेना में भर्ती होने वाला 2 □	□ 1 ठेकेदार सब की सहायता करने वाला 2 □	□ 1 मुफ्त दवा बाँटने वाला श्रमदान करने वाला 2 □	□ 1 गृह-शास्त्र शोधकर्ता सेवा-सुश्रूषा करने वाला 2 □	योग S2 =
कला केन्द्र संचालक करने ]	□ 1 मुर्गीखाना चलाने वाला गृह-विज्ञान की पुस्तक पढ़ने वाला 2 □	□ 1 सेल्स-मैनेजर गृह प्रबन्धक 2 □	□ 1 अवैतनिक अध्यापक गृह-प्राथमिक चिकित्सक 2 □	□ 1 घर में सिलाई करने वाला गृह-कला निपुण 2 □	योग H 2=
=	योग AG 1 =	योग P 1 =	योग S 1=	योग H 1=	





### LIST OF SCHOOLS

1. Gyan Bharti Inter College, Gajraula.
2. Shri Gandhi Vidhyalya Inter College, Dhaunaura.
3. Rashtriya Inter College, Dhanaura.
4. Kisan Inter College, Mindra Khera.
5. Krishak Inter College, Kothi Khidmatpur.
6. Krishak Uchhatar Madheymic Vidhyalaya, Sardarpur, Matlabpur.
7. Krishak Uchhar Madhaymic Vidhyalaya, Sharif Nagar.
8. Krishak Inter College, Pyandopur Malakpur, Semli.
9. Smt. Sukh Devi Inter College, Hasanpur.
10. Grameen Inter College, Ganeshwari.
11. Shiv Inter College, Gajraula.
12. Dayanand Uchhatar Madhymik Vidhyalaya, Said Nagli.
13. J.S. Hindu Inter College, Amroha.
14. Gandhi Smarak Inter College, Surjan Nagar, Jai Nagar.
15. Nehru Smarak Inter College, Rajabpur.
16. Kisan Inter College, Jahangeerpur.
17. A.K.G. Intermediate College, Jalalpur
18. Public Higher Secondary College, Umraikalan.
19. K.P. Inter College, Shadpur.
20. Kisan Inter College, Badshapur.
21. A.W. Faize Uchhatar Madhymic Vidhyalaya, Amroha.
22. Kishan Inter College, Taharpur.
23. Kisan Adardh Inter College, Khad Gujar.
24. Janta Inter College, Patai Khalsa.
25. Intermediate College, Jamma Khas.



26. Sarvodaya Inter College, Dilari.
27. Hindu Inter College, Thakurdwara.
28. Rashtriya Inter College, Jobda Abbampur.
29. Turki H.S. School, Palanda.
30. Kisan H.S. School, Aghwanpur.
31. Ambika Prasad Inter College, Moradabad.
32. Rishikul High School, Moradabad.
33. Vidhya Niketan Inter College, Sirsawa Harchand.
34. Janta Higher Secondary School, Vilabala.
35. A.M.S. Higher Secondary School, Sambhal.
36. H.S.B. Inter College, Moradabad.
37. K.G.K. Inter College, Moradabad.
38. G.G.H. Inter College, Moradabad.
39. F.D. Higher Secondary School, Moradabad.
40. Moradabad Inter College, Moradabad.
41. Ansar Inter College, Moradabad.
42. Shiam Lal Higher Secondary School, Moradabad
43. Kundan Model Inter College, Amroha.
44. Kisan Inter College, Wajidpur.
45. Maharaj Agarsen Inter College, Moradabad.
46. Kameshwar Higher Secondary School, Niwadkhas
47. Kisan Upkar Inter College, Bhawalpur.
48. Nanak Inter College, Chandausi.
49. Ram Ratan Inter College, Bilari.
50. C.P. Singh, Arya Inter College, Behjoi.
51. Inter College, Behjoi.
52. Madan Swaroop Inter College, Haryana



53. Inter College, Chandawali.
54. S.S. Inter College, Moradabad.
55. R.A. Inter College, Moradabad.
56. Abbas Higher Secondary School, Moradabad.
57. Parker Inter College, Moradabad.
58. S.M. Inter College, Chandausi.
59. Sardar Singh Inter College, Narauli
60. Hindu Inter College, Sambhal.
61. Chandausi Inter College, Chandausi.
62. Lkoti H.S. School, Moradabad.
63. R.P. Vidhya Mandir, Syandora.
64. Umad Ram H.S. School, Hayat Nagar.
65. R.N. Inter College, Moradabad.
66. Hawett Muslim Inter College, Moradabad.
67. P.L.J.L. Rastogi Inter College, Moradabad.
68. S.B. Inter College, Sambhal.
69. F.R. High School, Chandausi.
70. J.R. Vidhyalaya, Satpara.
71. S.C.K.N. Higher Secondary School, Atta-Atora.
72. J.L.M. Inter College, Sirsi.
73. W.L.S.S. Inter College, Gumthal
74. J.L.M.N.S. School, Kundarki.
75. Kishan Higher Secondary School, Asmoli
76. D.S.M. Inter College, Kanth
77. Sikh Inter College, Narangpur
78. Imamul Maberis Inter College, Amroha.
79. Phoolwati Kanya Inter College, Moradabad.



80. R.K.H. School, Hayat Nagar,
81. S.S.H.S. Kanya H.S. School, Bilari.
82. R.C. Singh Khatri High School, Amroha
83. R.C. Sharma Balika Vidhya Mandir, Moradabad.
84. B.R.S. Arya Kanya Inter College, Sambhal.
85. B.M.G. Inter College, Chandausi.
86. B.M.G. Inter College, Chandausi.
87. A.A. Girls Inter College, Amroha.
88. Sri Akroor Kanya Inter College, Chandausi.
89. Pratap Singh Inter College, Moradabad.
90. Arya Kanya Pathshala, Moradabad.
91. J.R. Inter Copllege, Moradabad.
92. Baldev Inter College, Moradabad.
93. Prabha Devi Inter College, Moradabad.
94. Kaushalya Inter College, Moradabad.
95. Lakshmi Narayan Inter College, Moradabad.
96. Abdul Salam Inter College, Moradabad.
97. Shyam Devi H. School, Amroha
98. Rajkala Inter College, Moradabad.
99. Govt. Inter College, Moradabad.
100. St. Mary's H.S. School, Moradabad.
101. Mission Inter College, Moradabad.
102. Rajkiya Mahila Diksha Vidhyalaya, Hasanpur
103. Kundan Model Inter College, Amroha
104. Rajkiya Kanya H.S. School, Sambhal.
105. Rajkiya H.S. School, Bhojpur.
106. Rajkiya Inter College, Kanth
107. Maharaja Agarsain Inter College, Moradabad.
108. Arya Kanya Inter College, Chandausi.